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SEEDS AND FERTILIZERS 1926

OLDS & WHIPPLE
(Incorporated)
HARTFORD, CONN.

O. N. Sponsler

SEED, FERTILIZER

AND

AGRICULTURAL IMPLEMENT CATALOG

For 1926

FERTILIZER FACTORY:

Tolland Street, East Hartford, Conn.

MAIN OFFICE AND IMPLEMENT WAREHOUSE:

164-6-8 State St., Hartford, Conn.

OLDS & WHIPPLE, Inc.

NOTE: Stop at State Street Office and secure a written order on Warehouse for fertilizers.

This picture shows the old Store occupied by us from Nov. 15, 1877 until it was demolished in 1896 to make room for our new Building.

Our present quarters 164-168 State St. Built in 1896.

In Memoriam

Born January 16, 1852, died September 17, 1925. During the past year, Alfred A. Olds for many years senior partner of Olds & Whipple, and later President of Olds & Whipple, Inc., passed on.

Those who knew him best loved him best.

A somewhat brusk manner concealed a warm sympathetic nature. Always ready to help in adversity, always ready to admit a fault.

A man of sterling integrity, whose word was as good as his bond. With a keen sense of humor he endeared himself to those closely associated with him and is sadly missed from our midst.

Rarely do two men work side by side for so long a period, forty-eight years, as did Alfred A. Olds and Frank H. Whipple, the surviving partner and present President of the Corporation.

O. & W. High Grade Starter and Potash Compound

This formula with 5 per cent quickly soluble Ammonia and 15 per cent actual Potash should be used with C. S. Meal or Castor Pomace in growing the tobacco crop and when so used makes a complete fertilizer. The Ammonia of C. S. Meal or Pomace is slow acting and on most lands a more quickly soluble form of Ammonia is needed to start the crop. We recommend using 1000 to 1500 lbs. per acre with a ton of C. S. Meal or Pomace.

GUARANTEED ANALYSIS { 5 to 6% Ammonia.
4 to 5% Available Phosphoric Acid.
15 to 16% Actual Potash.

O. & W. Complete Market Garden Fertilizer

This is one of our high grade special mixtures for use on Corn, Potato, Onion Crops, Market Garden and general purpose fertilizer.

The sources of plant food are such as are exceedingly available to the plant and best suited to promoting rapid and vigorous growth. Tested at our own farms we are able to speak authoritatively as to its merits. All growers will be repaid by using this special mixture on their Crop.

Our soils are well adapted to the culture of these Crops and to make them profitable as well, is an easy matter if the culture is supplemented and promoted by the use of our special fertilizer.

GUARANTEED ANALYSIS { 4 to 5% Ammonia.
8 to 9% Available Phosphoric Acid.
4 to 5% Actual Potash.

O. & W. Grain and General Crop Fertilizer

This Special Fertilizer is well balanced for general crops. It is used extensively in the onion growing section of Massachusetts and produces fine crops.

Moderate in price, it has a well earned place in our list of formulas.

GUARANTEED ANALYSIS { 2 to 3% Ammonia.
9 to 10% Available Phosphoric Acid.
3 to 4% Actual Potash.

O. & W. High Grade Potato and Vegetable Fertilizer

This is a concentrated mixture running high in analysis in every ingredient, and as a formula, is extensively used in the potato growing sections of Maine. To produce large crops of potatoes you must feed heavily of Potash. This was thoroughly proven during the war, as even when Potash was extremely high and scarce some of the Maine potato growers paid the price for this ingredient and were well repaid by increased crop.

GUARANTEED ANALYSIS { 5 to 6% Ammonia.
8 to 9% Available Phosphoric Acid.
7 to 8% Potash.

O. & W. Grass Fertilizer

A complete fertilizer with all the essential elements for rapid and luxurious growth, carrying both soluble salts and organic material, it is suitable both for top dressing or permanent seeding down mixture.

GUARANTEED ANALYSIS	{ 6.00 to 7.00% Ammonia
	{ 6.00 to 7.00% Avail. Phos. Acid
	{ 4.00 to 5.00% Actual Potash

Springfield Rose Food

An organic fertilizer, containing the vital elements of plant life in scientifically correct proportions to make it an ideal food for roses. Will keep your bushes in splendid condition and produce an abundant crop of perfect blooms.

Enthusiastically acclaimed by leading commercial growers and by members of the American Rose Society in all sections of the country.

10 lbs.	\$1.00
25 lbs.	2.00
100 lbs.	5.00

Springfield Carnation Food

An exact food, based on the needs of carnations. It has secured the enthusiastic endorsement and approval of growers throughout the country.

It invigorates root action, strengthens stem and calyx, intensifies the color, adds lasting qualities to the blooms, and insures a larger and more perfect crop.

100 lbs.	\$6.00
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Agricultural Lime

Lime is necessary on many soils to correct acidity and to render available the inert plant food present. We are, however, of the opinion that liming may be easily overdone, that constant application would tend to make the soil alkaline. We offer lime in two forms; Agricultural Lime, which is the flakings at the lime kilns and is made up partly of airslacked lime and also contains some lime that is not thoroughly airslacked. We offer this in carload lots in bulk or bags and in bags less car lots. We can also furnish Ground Limestone in car lots, bulk or bags and in bags less car lots.

Prices on Lime and all fertilizer mixtures on application.

Olds & Whipple, Inc.

List of Fertilizers and Raw Materials for 1926

O. & W.'s Special Fertilizers

O. & W. Complete Tobacco Fertilizer	O. & W. High Grade Potato and Vegetable Fertilizer
O. & W. Blue Label Tobacco Fertilizer	O. & W. Complete Grass Fertilizer
O. & W. High Grade Tobacco Starter	O. & W. High Grade Tobacco Starter and Potash Compound
O. & W. Complete Market Garden Fertilizer	O. & W. Lawn Fertilizer
O. & W. Grain and General Crop Fertilizer	

FERTILIZING MATERIALS

Swift Sure Phosphate.	Acid Phosphate.
Swift Sure Bone Meal.	Sulphate of Ammonia.
High Grade C. S. Meal guaranteed analysis.	Nitrate of Soda.
Castor Pomace guaranteed analysis.	Sheep Manure.
Tobacco stems in bales.	Dry Ground Fish.
Lime for Agricultural use.	Tankage.
Fine ground Nova Scotia Plaster.	Steamed Bone.
High Grade Muriate Potash.	Precipitated Bone Phosphate.
High Grade Sulphate Potash.	Poultry Manure.

FERTILIZERS FOR 1926

There is little change in the cost of fertilizer raw materials, hence there can be only minor changes in the price of mixed goods.

We offer our usual list of Special Formulas for all crops. We would call especial attention to our O & W High Grade Starter and Potash Compound to be used in conjunction with Castor Pomace or Cotton Seed Meal and when so used making a complete tobacco fertilizer. This combination has been extensively used during the past few years with most satisfactory results.

We again urge our customers to order their fertilizer at once and allow us to deliver same at an early date and thus avoid the mad scramble that always comes late in the season. There is no good reason for delay. Our prices are guaranteed against our decline and no better prices will prevail later in the season.

Our Special Mixtures for all Crops

The following pages give you a list of the special fertilizers which we manufacture at our own factory.

These special mixtures are from tested formulae, proved out by practical growing tests. They are finely ground, and mechanically, in such condition, as to render them readily available to the growing crops.

Their use will repay you. They produce the kind of crops that pay. Used and endorsed by best growers.

O. & W. Complete Tobacco Fertilizer

Thousands of tons of this formula are used up and down the Connecticut Valley, proved to be the best by years of experience. While we make many special formulae to suit the ideas of our customers, O. & W. COMPLETE leads them all in popularity. This formula is the result of years of experimenting on our own farms and is endorsed by buyers of the leaf which is the strongest kind of recommendation. No tobacco fertilizer can be made better.

GUARANTEED ANALYSIS { 5 to 6% Ammonia.
4 to 5% Available Phosphoric Acid.
5 to 6% Actual Potash.

Our Blue Label Brand Tobacco Fertilizer

This fertilizer carries 1000 lbs. of C. S. Meal in every ton, put up for the grower who desires a large amount of meal under his tobacco crop. The phosphoric acid and potash are derived from the same high grade sources as our Complete Tobacco Fertilizer.

GUARANTEED ANALYSIS { 6 to 7% Ammonia
3 to 4% Available Phosphoric Acid
6 to 7% Actual Potash

O. & W. High-Grade Tobacco Starter

This high grade starter has been used with conspicuous success by some of our best growers in the valley. We recommend that it be applied after the first time hoeing. At that critical stage of growth an abundant supply of quickly available ammonia enables the plant to get a vigorous start, overcome and grow away from any unfavorable condition that may exist.

Experience has taught us that the crop that grows quickly, vigorously and does not stop until it reaches maturity produces the best goods.

Apply about 500 lbs. per acre.

Guaranteed Analysis { 10 to 11% Ammonia.
3 to 4% Available Phosphoric Acid.

Prices on all goods in this catalogue are subject to change without notice.

DESCRIPTIVE CATALOGUE and PRICE LIST
OF
Garden and Farm Seeds,
Agricultural Implements and
Fertilizers
for 1926

WE DO NOT WARRANT SEEDS

The fact that no reputable seedsman now warrants seeds in any respect being well known renders it unnecessary for us to say very much on this point, as it must be apparent to every intelligent person that no seedsman can afford to send out poor or worthless seeds. There could be no more certain ways of destroying his business. We beg to append the following notice:

The seeds offered in this catalogue have been carefully selected from most reliable sources and we believe them to be first-class in every respect, but we cannot guarantee the crop as too many conditions enter into it. Therefore we give no warranty, expressed or implied, as to description, purity, productiveness, or any other matter of any seeds we send out, and we will not be in any way responsible for the crop. If the purchaser does not accept the goods on these terms they are to be returned at once, and if any money has been paid for them it will be refunded.

OLDS & WHIPPLE, INC.

MAIL ORDERS AND SHIPMENTS

Prompt attention to orders by mail. Mailing blank is enclosed in Catalogue to render this service more convenient. Be particular in giving name and address. The new system of Parcel Post enables us to make shipment of large packages by mail.

SEEDS BY MAIL

We will pay postage on seeds in packets, ounces, or by pound, with these exceptions; peas, beans, corn, onion sets, grain and grass seeds, which necessitate an extra charge of 5 cents per pound.

ASPARAGUS

An Asparagus bed may be made from one or two year old roots, planted in fall or spring. Plant the roots in rows four feet apart, leaving about twelve inches between plants in the row. Should be planted in trenches and gradually filled in as plants grow. Seeds may be sown in April in drills one foot apart and one inch deep. One ounce of seed will sow sixty feet of drill.

	Per Pkt.	Per ¼ lb.	Per lb.
The Palmetto,—Superior variety, extra large,	\$0.10	\$0.25	\$0.75
Conover's Colossal.—Large and hardy,	.10	.25	.75
Donald's Elmira Roots.—Fine, large, 2 year old and fresh dug.		Per 100,	1.25
Giant Argenteuil Roots—Fresh dug roots.		Per 100,	1.25
Washington—Large roots.		Per 100,	2.00
Mary Washington		Per 100,	2.00

BEANS—Dwarf or Bush

To produce a regular succession of crops through the season, plant every two weeks, from about beginning of May to end of summer. Plant in rows 18 inches apart, two inches deep; cultivate only when soil is dry, as the scattering of earth on vines will cause them to rust. One quart will plant 100 feet of drill and one and one-half bushels for one acre.

BEANS

Owing to extremely unfavorable weather conditions, the bean crop is very short, some varieties were almost a total crop failure. Stocks are scarce and prices high.

	Per lb.	5 lb. Lot Per lb.	15 lb. Lot Per lb.
Burpee's Bush Lima.—A true bush form and immense cropper,	\$0.40	\$0.35	\$0.30
Fordhook Bush Lima.—	.50	45	.40

	Per lb.	5 lb. Lot Per lb.	15 lb. Lot Per lb.
Improved Rust Proof, Golden Wax. —Early, long, round, stringless pods,	\$0.35	\$0.30	\$0.25
Early Golden Eyed Wax. —Hardy and prolific, flat pods, early,	.35	.30	.25
Black Wax, Prolific. —Very early, round thick pods,	.35	.30	.25
Wardwell's Kidney Wax. —Early, flat long wax pods, very fine,	.35	.30	.25
Early Valentine. —Improved, true round green pod,	.35	.30	.25
Bountiful. —Flat Green pods, stringless,	.35	.30	.25
Burpee's Stringless. —Round Green pod, early,	.35	.30	.25
Horticultural Dwarf —Green pod, a superior shell bean, medium early,	.35	.30	.25
Low's Champion. —Large green flat stringless pods,	.45	.40	.35
White Kidney. —An excellent shell bean and for baking, green pod,	.30	.25	.20
White Marrow. —A fine winter bean,	.30	.25	.20
Boston Favorite. —A large late dwarf horticultural,	.35	.30	.25
Red Kidney. —An excellent shell bean, similar to White Kidney,	.30	.25	.20

BEANS—Pole

Plant in hills three to four feet apart, putting four or five beans in a hill, and leaving space in the center for the pole. One quart of limas will plant 100 hills. One quart of the smaller seeded sorts will plant about 200 hills.

	Per lb.	5 lb. Lot Per lb.	15 lb. Lot Per lb.
Extra Early Jersey Lima. —An early and large variety,	\$0.40	\$0.35	\$0.28
Lima, Large White. —An old and choice variety,	.40	.35	.28
Lima, King of the Garden. —Large and extremely productive,	.40	.35	.28
Early Caseknife. —Long green and flat pods, used as shell and snap bean,	.35	.30	.25
Horticultural Cranberry. —Excellent quality,	.35	.30	.25
Early Golden Cluster Wax Pole. —Early golden pods, large and tender,	.40	.35	.30
Kentucky Wonder. —Green pod, very prolific,	.40	.35	.30

BEETS—Table Varieties

Sow from April to beginning of July, in drills about one foot apart, covering seeds about one inch. Thin the young plants when suitable size for greens to six or eight inches apart. One ounce sows 50 feet of drill, 5 to 6 pounds to one acre.

	Per pkt.	Per oz.	Per lb.
Early Wonder. —Deep red, round, very popular with market gardeners,	\$0.10	\$0.15	\$1.00
Crosby's Egyptian. —Early smooth and fine quality,	.10	.15	.90
Edman's Extra Early. —One of the best,	.10	.15	80

	Per pkt.	Per oz.	Per lb.
Early Eclipse. —Very early, dark red color,	\$0.10	\$0.15	\$0.80
Early Egyptian. —Good color, a smooth turnip beet,	.10	.15	.80
Early Bassano. —Earliest of all, flesh nearly white,	.10	.15	.80
Detroit Dark Red. —Smooth, bright red, good keeper,	.10	.15	.85

Dewing's Early Blood Turnip.

Bastian's Early Blood Turnip. —A quick large growing sort, of good color,	.10	.15	.80
Dewing's Early Blood Turnip. —A standard variety of excellent quality,	.10	.15	.80
Long Smooth Blood. —An excellent late variety for winter use,	.10	.15	.80
Swiss Chard. —Fine for greens, cultivated solely for leaves,	.10	.15	1.00

MANGOLD WURZEL

Sow in May or June in rows, 18 inches to 2 feet apart, and thin to 8 inches in the row. The value of these for stock feeding cannot be over estimated. Sow 6 to 8 pounds to one acre.

	Per oz.	per lb.
Carter's Mammoth Long Red. —A heavy cropper, one of the best,	\$0.10	\$0.60
Norbiton Giant Long Red. —Very productive,	.10	.60
Yellow Globe. —Large globular formed roots, good for shallow soils,	.10	.60
Giant Half Sugar. —Rose shape and similar to Norbiton Giant,	.10	.60
Golden Tankard. —A half-long variety of bright yellow color,	.10	.60
White Sugar, Lane's Improved. —A well known variety,	.10	.60

Mangold seed in 5 pound lots, 30 cents a pound.

BROCCOLI

A vegetable resembling Cauliflower but much hardier. Requires the same general culture as cabbage. One ounce of seed produces about 1,500 plants.

	Per pkt.	Per oz.
Purple Cape. —Medium size heads, hardy,	\$0.20	\$0.65
White Cape. —Like Purple Cape, but of cream white color.	.20	.65
Early Green Italian. —	.25	1.00

BRUSSELS SPROUTS

A species of cabbage family and cultivated in about same manner. One ounce of seed will produce about 1,200 plants.

	Per pkt.	Per oz
O. & W.'S Best	\$0.20	\$0.50

CABBAGE—Early

All Seasons.

All the Cabbage family require rich, deep, well-drained soil. For the early kinds, plant in rows 30 inches apart and 16 inches between the plants. For the late varieties, three feet between the rows and two feet between the plants. For very early use, sow in January or February in hot-beds. Set out when plants are strong enough into other hot-beds or set in cold frames in March. Transplant when danger from frost is past to open ground. The late, or winter crop seed can be sown in May and the plants set out when large enough.

To destroy the green worm that attacks the cabbage plant, use a solution of one ounce of saltpetre in three gallons of water. One ounce of seed will produce about 3,000 plants, one-quarter pound for one acre.

	Per pkt.	Per oz.	Per lb.
Copenhagen Market.—Extra early round hard head	\$0.10	\$0.25	\$4.00
Early Jersey Wakefield Extra.—A fine, very early medium sized market favorite,	.10	.25	3.00
Early Summer.—A superior, second early, heads large and solid,	.10	.25	2.75
Early Flat Dutch.—A fine early variety for family use,	.10	.25	3.00
Early Winnigstadt.—A medium early conical shaped head,	.10	.25	2.75
Fottler's Brunswick.—A short stemmed early drumhead,	.10	.25	2.75
All Seasons.—Medium early, very large and sure header,	.10	.25	3.00

CABBAGE—Late Varieties

	Per pkt.	Per oz.	Per lb.
O. & W. Premium Flat Dutch. —An extra fine selection of the large late Flat Dutch,	\$0.10	\$0.25	\$2.75
Improved American Drumhead Savoy. —Large, fine quality, excellent winter cabbage,	.10	.25	3.00
Stone Mason Drumhead. —A large round solid variety,	.10	.25	3.00
Red Dutch Drumhead. —Fine solid dark red heads,	.10	.25	3.00
Hollander, or Danish. —A superior winter variety, heads round, very hard, fine and tender,	.10	.25	3.00
Sure Head. —Large growing, fine heading, solid and large,	.10	.25	2.75
Chinese. —Select,	.10	.35	4.00

Paris Golden.

CELERY

Sow seed about the first of April in hot-bed or cold frame. Transplant four inches apart, when three inches high in rich soil; water and protect until well rooted, then transplant into rows 5 or 6 feet apart either on surface or in trenches 8 inches deep. Set the plants 10 or 12 inches apart. To blanch draw earth around the plants from time to time.

One ounce of seed will give about 4,000 plants.

	Per pkt.	Per oz.	Per lb.
Paris Golden, Self Blanching, (French.) —An early golden variety, very popular,	\$0.20	\$0.75	\$10.00
Boston Market. —One of the best varieties in cultivation,	.10	.30	3.00
Celeriac. —Turnip rooted, used for salads and soups,	.10	.25	3.00
White Plume. —Easily bleached, usually solid and of a pleasing nutty flavor,	.10	.30	3.00
Golden Plume. —Popular Golden self-blanching,	.50	2.00	20.00
Winter Queen. —One of the best winter varieties,	.10	.30	3.00
Giant Pascal. —Second early, crisp, fine quality,	.10	.30	3.00
Easy Blanching. —White, solid, easily bleached,	.20	.45	5.00

CARROT

Carrots thrive best in rather light loam; soil should be well cultivated and well fertilized. Plant in rows 14 inches apart, and thin plants to 3 to 5 inches in the rows. Plant from the middle of April to the middle of May.

One ounce will sow 100 feet of drill. 3 to 4 pounds to one acre.

	Per pkt.	Per oz.	Per lb
Geurande, or New Ox Heart. —An intermediate variety, .	\$0.10	\$0.15	\$1.00
Danvers Half Long. —A most desirable variety, great keeper, .	.10	.15	1.00
Improved Long Orange. —A large long rooted variety, for stock purposes, .	.10	.15	1.00
White Belgian. —Large, white, productive, for stock, .	.10	.15	.75
Early Scarlet Horn. —An early short variety for forcing, excellent for table, color deep orange, .	.10	.15	1.00
Early Half Long Scarlet. —Stump-rooted, coreless, red color, .	.10	.15	1.00
Chantenay. —A half-long, one of the finest for table use, .	.10	.15	1.00

CAULIFLOWER

Is one of the most delicious varieties of the Cabbage family. Requires a rich deep soil, a low moist situation being desirable. Plants should be set in rows about 2 feet apart and 18 inches between the plants.

One ounce will sow a bed of 40 square feet and produce about 2,000 plants.

	Per pkt.	Per ¼ oz.	Per oz.
Henderson's Snowball. —This ranks extremely high among the early varieties, it is a reliable header of good size and of rich white color, .	\$0.20	\$0.75	\$2.00
Erfurt Early Dwarf. —A good variety, .	.20	.75	2.00
Early Paris. —A standard early variety, .	.15	.45	1.40

CORN—Sweet

Requires a rich warm soil. For early varieties plant when ground has become well warmed; successive plantings may be continued until July. Plant in hills from 3 to 3½ feet apart, according to the height of variety.

One quart will plant 200 hills; 8 quarts for one acre in hills.

	Per lb.	5 lb. Lot	15 lb. Lot
	Per lb.	Per lb.	Per lb.
Columbia. —Earliest white variety, .	\$0.35	\$0.28	\$0.25
Early Maine. —An extra early variety, .	.30	.22	.19
Extra Early Cory. —One of the leading extra early market varieties, .	.30	.22	.19
White Cob Cory. —Similar to Early Cory; less hardy, very satisfactory, .	.30	.22	.19
New Champion. —Fine early quality with large ears, .	.30	.22	.19
Early Minnesota. —One of the second early sorts, ears of good size, .	.30	.22	.19

	Per lb.	5 lb. Lot Per lb.	15 lb. Lot Per lb.
Crosby's Early.—An old favorite, early and of excellent quality,	\$0.30	\$0.22	\$0.19
Country Gentleman.—A rich, sweet, deep kernalled variety, with small cob,	.35	.28	.24
Whipple's White.—Early and good quality.	.35	.28	.24
Whipple's Yellow.—Early as golden bantam but much larger, fine quality,	.35	.28	.24

Early Maine.

Long Island Beauty.—Large late and one of the best,	.30	.22	.19
Evergreen.—A standard late variety,	.30	.22	.19
Mammoth Sugar.—Extra large sweet variety, of good quality,	.30	.22	.19
Black Mexican.—An early, tender corn of fine flavor,	.35	.28	.24
Golden Bantam.—A yellow sweet corn, extra early and extra hardy, very tender and sweet,	.35	.25	.22
Golden Giant.—Cross between Golden Bantam and Howling Mob,	.30	.22	.19
Howling Mob.—Excellent quality early large ears,	.30	.22	.19

CORN—Field

(Prices subject to market changes.)

Central Pennsylvania.—A popular ensilage variety,	} at market prices.
Eureka.—A well known ensilage variety of White Corn. Very leafy, of extra large growth, and we believe will produce more tons of silage than any other variety. For Ensilage only,	
Leaming's Early Dent.—A very popular Dent Corn, grown for both grain and Ensilage. This variety will mature in this latitude,	
Mastodon Early.—Large, free growing, very productive,	
Early Yellow Dent. — Connecticut grown, a dent corn that will mature in this latitude,	
Longfellow.—A yellow flint corn, a well and favorably known variety,	
8 Row Yellow Flint.—A blue ribbon corn, grown seed,	

Use O. & W. Complete Market Garden Fertilizer for Corn

CRESS

To be planted in drills and sown quite thickly, on good rich ground, in early spring.

One ounce of seed will plant 100 feet of drill.

	Per pkt.	Per oz.	Per lb.
Curled.—	\$0.10	\$0.15	\$0.75

CUCUMBER

First planting should be made in May when ground is dry and warm, in hills about 4 feet apart; thin out to 3 to 4 plants to the hill when established. For pickles plant during the last two weeks in June.

One ounce will plant 50 hills; two pounds for one acre.

Improved Early White Spine.

	Per pkt.	Per oz.	Per lb.
Early Fortune. —Excellent for slicing or Pickling, .	\$0.10	\$0.15	\$1.25
Early Russian. —The earliest variety, about 4 inches long, .	.10	.15	1.00
Early Cluster. —Bears in clusters, early and productive, .	.10	.15	1.00
Davis Perfect. —Dark green, good length, popular. .	.10	.15	1.40
Snow Pickling. —One of the best pickling, .	.10	.15	1.00
Improved Early White Spine. —A standard variety of uniform good size and color, .	.10	.15	1.00
Green Prolific. —The very best pickling sort, .	.10	.15	1.00
Boston Pickling. —Produces an abundant crop of dark green color, .	.10	.15	1.00
Improved Long Green. —A large and late variety, .	.10	.15	1.40

DANDELION

Sow in May in drills 12 inches apart, covering seeds about one-half inch deep. Cultivate to keep down weeds during summer and the following spring leaves will be suitable for cutting. Must be covered in winter to protect from frost.

One ounce for 100 feet of drill. One pound for one acre.

	Per pkt.	Per oz.	Per lb.
Improved Thick-Leaved. —Standard sort, very productive, .	\$0.25	\$0.75	\$8.00
French Garden. — .	.15	.35	4.00

DILL

	Per pkt.	Per oz.	Per lb.
Mammoth or Long Island. — .	\$0.10	\$0.15	\$1.00

EGG PLANT

Plant the seed in hot beds early in spring. Transplant when two inches high into another bed, or small pots. Plant in garden when weather is settled and warm. Should be placed about 3 feet apart, and well watered for 2 or 3 days, until they show signs of being rooted.

	Per Pkt.	Per oz.
New York Improved Purple. —The leading market variety, excellent and very productive. .	\$0.15	\$0.50
Black Beauty. —Early, fruit black, round and solid, .	.15	.50

ENDIVE

For early use, sow as soon as ground can be worked in spring in drills fifteen inches apart; thin plants to six inches in the row. Any ordinary soil will do, but a moist place is preferred. To blanch the leaves, gather them together when dry and tie with matting or cover with ordinary flower pots inverted.

One ounce will produce about 3000 plants.

	Per pkt.	Per oz.	Per lb.
Green Curled. —A standard sort,	\$0.10	\$0.15	\$1.00
Moss Curled. —Very ornamental,	.10	.15	1.25
Batavian Escarolle. —	.10	.15	1.25

KALE or German Greens

Plant the larger varieties in hills two by three feet apart and thin to one plant to the hill. Requires deep, rich soil. Set out plants in June and treat in same manner as for cabbage.

One ounce will produce 2,000 plants.

	Per pkt.	Per oz.	Per lb.
Green Curled Scotch. —Leaves of bright green, very tender and closely curled,	\$0.10	\$0.15	\$1.00
German Greens. —To be sown in fall for spring use,	.10	.15	.90

KOHL RABI

An intermediate vegetable between the cabbage and turnip. Prepare as for cabbage. Sow in April in rows 18 inches apart and thin out to 8 inches apart.

One ounce gives 3,000 plants.

	Per pkt.	Per oz.
Early White Vienna. —A standard early,	\$0.10	\$0.20
Early Purple Vienna. —Very large and productive,	.10	.20

LEEK

Sow the seeds in April and transplant in July to rows 15 inches apart and 8 inches between plants.

One ounce will grow 1,000 plants.

	Per pkt.	Per oz.	Per lb.
American Flag. —A hardy and profitable sort, excellent for winter use,	\$0.10	\$0.20	\$1.75

Boston Market.

LETTUCE

Lettuce needs a rich and moist soil, should be sown in rows about 12 inches apart and the plants thinned to 10 inches apart for the heading varieties. When not grown for head they may be sown broadcast. The more rapid the growth, the better the quality.

One ounce for 3,000 plants.

	Per pkt.	Per oz.	Per lb.
May King. —Medium size, early, good heading, a popular sort,	\$0.10	\$0.20	\$2.00
Early Curled Silesia. —Sweet, early, good variety	.10	.20	1.75
Early Simpson. —Early, compact mass of tender leaves,	.10	.20	1.75
Black-Seeded Simpson. —Large light-colored head variety,	.10	.20	1.75
Boston Market. —Early, small heads, very hardy,	.10	.20	1.75
Hanson. —Large, solid, crisp head, one of the best outdoor sorts,	.10	.20	1.75
True Iceberg —Light green heads,	.10	.20	2.25
Tennis-Ball Black Seeded. —Excellent for early large heads,	.10	.20	2.00
Tomhannock. —One of the best varieties for broadcast cultivation, leaves slightly bronzed,	.10	.20	2.00
Crisp as Ice. (Bronzed) a fine bronze leaf lettuce,	.10	.20	2.00
New York —Head lettuce, commonly called Iceberg	.15	.30	3.00
Big Boston. —A head lettuce, for forcing or open culture,	.10	.20	1.75
Cos or Romaine	.10	.20	2.50

MUSTARD

Sow from April to June in drills one foot apart and cover seed lightly. Used principally for salads.

	Per oz.	Per ¼ lb.	Per lb.
White or English. —For salad or medicinal purposes,	\$0.10	\$0.20	\$0.45
Brown. —More pungent than white,	.10	.25	.75

MELON—Water

Ice Cream.

A warm light sandy loam preferred. Being tender should not be planted before middle of May. Plant in hills 5 to 6 feet apart each way for the musk varieties and 8 feet apart for the water. Cover seeds about one-half inch deep and when well started thin out to 3 plants in a hill. One ounce will plant about 15 hills; 4 pounds to the acre.

	Per oz. pkt.	Per lb.
Cuban Queen. —Round, large, red meated and sweet,	\$0.10	\$0.85
Gray Monarch. —Very large, of exceptional fine quality, long, red color and very sweet,	.10	.80
Cole's Early. —Round, striped, delicious flavor, red flesh, good size,	.10	.80

	Per oz. pkt.	Per lb.
Kleckley's Sweet.—Oblong in form, dark green, thin rimmed, flesh bright scarlet, white seed, sweetest of all,	\$0.10	\$0.85
Mountain Sweet.—An old standard variety, early and solid,	.10	.80
Phinney's Early.—Early, reliable, red fleshed, productive,	.10	.75
Ice Cream.—White seeds, medium size, solid fine flavor, one of the most popular varieties grown,	.10	.85
Kolb's Gem.—Flesh bright red, almost round, grows large, very choice,	.10	.85
Citron for Preserves.—	.10	.75

Rocky Ford Melon

MELON—Musk

One ounce will plant 80 hills; 2 to 3 pounds for one acre.

	Per pkt.	Per oz.	Per lb.
Hackensack.—Large, productive and good flavor, green fleshed	\$0.10	\$0.15	\$1.00
Rocky Ford.—A very popular variety, flesh light green, sweet and delicate flavor,	.10	.15	1.00
Bender's Surprise.—Large, slightly oval, good quality, pink flesh,	.10	.20	2.00
Hearts of Gold.—Round medium early, pink flesh,	.10	.15	1.00
Miller's Cream.—Thick meated and salmon colored flesh, delicious,	.10	.15	1.00
Paul Rose.—An extra quality, salmon flesh, medium size,	.10	.15	1.00
Emerald Gem.—Small, but prolific, yellow meated, superior quality,	.10	.15	1.00
Osage, Salmon Fleshed.—A deliciously sweet melon of fine flavor,	.10	.15	1.00

NASTURTIUM

Cultivated for both use and ornament. Young seeds may be used as capers and leaves for salad purposes. The beautiful flowers, blooming freely all summer add a charm to the garden and lawn. Plant in May.

	Per oz.	Per ¼ lb.
Tall.—An ornamental climber,	\$0.10	\$0.30
Dwarf.—Fine for borders and beds,	.10	.30

OKRA

Plant in rows 2 feet apart, thinning plants to 1 foot apart in the row.

	Per pkt.	Per oz.	Per lb.
Dwarf Green. —Early and productive,	\$0.10	\$0.15	\$0.60

ONION

(Strictly new seed—Prices subject to change.)

Southport Red Globe.

O. & W. Complete Market Garden Fertilizer.

A fertilizer that will produce remarkable crops. Used by many of the best growers in Massachusetts and Connecticut

The onion thrives best in deep, loamy soil, well fertilized. Sow the seeds thinly in drills 1 foot apart. Cover seeds about $\frac{1}{4}$ inch, roll and tread soil down solidly. When 3 inches high, thin out to 3 inches apart. Cultivate well and keep out weeds.

One ounce seed will sow 100 feet of drill. Six pounds for one acre.

	Per pkt.	Per oz.	Per lb.
Extra Early Red. —Early, of flat shape, mild,	\$0.20	\$0.65	\$6.00
Wethersfield Large Red. —A large yielder, excellent to keep,	.20	.65	5.50
Southport Red Globe. —Finest large red sort,	.20	.65	6.00
Southport Yellow Globe. —Handsome and late variety,	.20	.75	8.00
Yellow Globe Danvers. —One of the superior yellow globe varieties,	.20	.75	8.00
Yellow Flat Danvers. —Very choice,	.20	.60	5.00
White Portugal. —Excellent for pickling, should be sown thick,	.20	.65	6.00
Prize Taker. —Yellow skin, white flesh, good cropper, large size,	.20	.65	6.00
Southport White Globe. —Early, mild flavored, large, not a good keeper,	.25	.80	10 00

ONION SETS

Should be planted as early as the ground can be worked in rows 12 inches apart. Set each about 3 inches apart. When onions are grown from sets they can be used in the green state in June, or will ripen by July.

Red	.	.	.	.	.	.	.	} at market prices.
White	.	.	.	.	.	.	.	
Yellow	.	.	.	.	.	.	.	

PARSLEY

Sow early in spring in drills 1 foot apart, covering lightly; thin out the plants to 3 to 4 inches apart; used for flavoring and garnishing. A single row forms a good edging for flower-beds or walks.

	Per pkt.	Per oz.	Per lb.
Moss Curled.—Very ornamental and productive,	\$0.10	\$0.15	\$0.90
Curled, or Doubled.—A most beautiful variety, moss-like leaves of handsome bright green color,	.10	.15	.90
"Plain" Leaved—(not curled).	.10	.15	.90

PARSNIP

Make the soil very fine and plant the seed very early, in rows eighteen inches apart, thinning plants to three or five inches in the rows; seeds should be covered about one-half inch deep.

Parsnips, aside from table use, have great value for stock feeding purposes. Are improved by allowing to remain in open ground through the winter.

One ounce to 150 feet of drill; five pounds for one acre.

	Per pkt.	Per oz.	Per lb.
Abbott's Improved Hollow Crown.—A great cropper, tender and sweet,	\$0.10	\$0.15	\$0.80
Long Smooth White.—One of the best for general cultivation,	.10	.15	.80

PEAS

The wrinkled varieties, while the sweetest of all peas, are more liable to rot, being tender, and need to be planted thicker and later than the round, hard sorts. Soil needs to be well manured. Have the dwarf varieties in rows two and one-half feet apart; those kinds growing two to three feet high, in rows three feet apart, and the tallest in rows four feet apart. The smooth varieties may be sown as soon as ground can be worked; the wrinkled sorts when soil is well warmed.

One quart to 100 feet of drill; one and one-half bushels to an acre.

Carter's Premium Gem.

	Per lb.	5 lb. lots Per lb.	Lots of 15 lb. Per lb.
East Hartford Extra Early.—True stock, 2½ feet, best early variety in the market, smooth variety.	\$0.30	\$0.25	\$0.23

	Per lb.	5 lb. lot Per lb.	15 lb. lot Per lb.
Alaska. —Hard, blue pea, 2½ feet, extra early, . . .	\$0.30	\$0.25	\$0.23
Gradus, or Prosperity. —An extra early wrinkled pea, very large pods, of magnificent quality, . . .	.30	.25	.23
Carter's Premium Gem. —Wrinkled pea, about 12 to 15 inches high, very productive, early, . . .	.35	.28	.25
Bliss's American Wonder. —Very dwarf, early wrinkled pea, . . .	.35	.28	.25
Nott's Excelsior. —A wrinkled dwarf, of excellent variety, early, . . .	.35	.28	.25
Sutton's Excelsior. —Similar to Nott's Excelsior, but producing larger and more abundant pods, . . .	.35	.28	.25
Daisy or Dwarf Telephone. —Dwarf habit, wrinkled, large pods, second early, . . .	.35	.28	.25
Bliss's Everbearing. —Very productive, peas large and wrinkled, two and one-half feet high, . . .	.35	.28	.25
McLean's Advancer. —An old and choice variety, two and one-half feet high, wrinkled, . . .	.35	.28	.25
Heroine. —Medium early, wrinkled, two to three feet high, quality perfection, . . .	.35	.28	.25
Yorkshire Hero. —Large, wrinkled pea, tender and fine flavored, two and one-half feet high, . . .	.35	.28	.25
Thomas Laxton. —Of similar growth to Gradus, a few days later, pods are deep rich green. In the judgment of many the Thomas Laxton is even sweeter and finer flavor than Gradus. . . .	.30	.25	.23
Telephone. —Four feet high, large peas of rich, sugary flavor, . . .	.30	.25	.23
Champion of England. —An old standard variety, late, five feet high, . . .	.35	.28	.25
Laxtonian. —Large dark green pod, best early dwarf, . . .	.35	.30	.28
Canada Field. —For stock purposes, (60 lbs. to the bushel),	at market price		

PEPPER

Should be started in hot beds, and transplanted into open ground by end of May; set in rows eighteen inches apart and plants about twelve inches apart in the rows.

One ounce of seed will produce about 3,000 plants.

	Per pkt.	Per oz.
Sweet Mountain. —Largely grown for both market and home use, . . .	\$0.15	\$0.50
Bull Nose. —This has long been the standard sweet sort, . . .	.15	.50
Ruby King. —Most popular large red pepper in cultivation, . . .	.15	.50
Large Squash. —Thick fleshed, early and mild flavored, . . .	.15	.50
Long Red Cayenne. —The true Cayenne, hot and pungent, . . .	.15	.50
Small Red Cherry. —A small smooth and round variety; productive, . . .	.15	.50

PUMPKIN

To be cultivated in same manner as squash.

	Per oz.	Per lb.
Small Yellow Sugar. —A handsome prolific variety, good keeper, best for pies,	\$0.15	\$1.00
Large Cheese. —Very large and good keeping variety, . . .	.15	1.00
Connecticut Yellow Field. —Grown largely for stock purposes, . . .	.10	.75

POTATOES—Northern Grown (MAINE CERTIFIED)

Use 12 to 15 bushels, or 5 barrels per acre. (See pages 34 and 35 for description of varieties.)

We offer only certified seed and the varieties listed below are the only varieties that are certified in Maine.

Here in Conn. nearly all markets demand Green Mountains for winter stock. This is the variety that agricultural authorities are always trying to improve and we believe it to be the best variety grown.

Spaulding Rose
Irish Cobbler
Green Mountain
(Improved)
at Lowest Market
Prices.

Deep Scarlet Turnip.

RADISH

For early use sow in spring as soon as ground can be worked. Sow in drills six to ten inches apart and thin out to one inch apart in the rows; as the roots are more tender and brittle when grown quickly, a rich light soil is preferred. For a succession sow every two weeks.

One ounce will sow 100 feet of drill; eight pounds for one acre.

	Per pkt.	Per oz.	Per lb
Early Scarlet Turnip. —Round red with white tip,	\$0.10	\$0.15	\$1.00

	Per pkt.	Per oz.	Per lb.
Deep Scarlet Turnip. —An all red standard variety,	\$0.10	\$0.15	\$1.00
Early Long Scarlet, Short Top. —The standard early long variety,	.10	.15	1.00
French Breakfast. —Most popular variety, of olive shape, red with white tip, quick growing,	.10	.15	1.00
Scarlet Globe. —One of the best; quite early, very crisp,	.10	.15	1.00
White Turnip. —For summer and winter use,	.10	.15	1.00
Black Spanish Long. —Black skin, white flesh—a winter variety,	.10	.15	1.00
Round Black Spanish. —The favorite German winter radish,	.10	.15	1.00
Rose Color China Winter. —Grows large and tender, good for winter use,	.10	.15	1.00

RHUBARB

Propagate from roots in richly prepared soil. Plants should be set five feet apart.

Victoria Giant— \$0.25 a root

SALSIFY, or Vegetable Oyster

Sow early in spring in light rich soil in drills fourteen inches apart and thin out to three inches apart in the row. The roots will be ready for use in October. When cooked the flavor resembles the oyster.

	Per pkt.	Per oz.	Per lb.
Sandwich Island Mammoth. —This variety grows to an unusually large size, roots tender and good flavor,	\$0.10	\$0.25	\$3.00

SPINACH

For very early spring use sow in August, for summer use sow in early spring, in drills about ten or twelve inches apart, covering the seed one inch deep. To obtain a succession sow at intervals of two weeks through the season. One ounce to 100 feet of drill, 10 pounds to one acre.

	Per oz.	Per lb.
Round Thick Leaf. —Produces dark thick leaves, somewhat crumpled,	\$0.10	\$0.50
Large Viroflay. —Grows extra large size,	.10	.50
Long Standing, or Evergreen. —Latest in seeding, one of the best for garden use,	.10	.50
Savoy Leaved. —Early, wrinkled and hardy,	.10	.50
New Zealand. —A very productive spreading plant,	.15	.90

Ask for prices in larger quantities.

SQUASH

Requires rich, warm soil. Plant in hills nine to ten feet apart for running varieties, and five or six feet apart for bush sorts. Leave two or three plants to a hill. Cultivate frequently.

One ounce will sow twenty to forty hills; two to four lbs. per acre.

Summer Crookneck.

	Per pkt.	Per oz.	Per lb.
Early Summer Crookneck.—The finest bush variety,	\$0.10	\$0.15	\$1.00
Giant Summer Crookneck.—Larger than the early summer,	.10	.15	1.20
Early White Bush Scallop.—Matures early and bears continuously,	.10	.15	.90
Early Yellow Bush Scallop.—Same as Early White, except in color,	.10	.15	.90
Hubbard.—The well known and most popular winter squash,	.10	.15	1.25
Boston Marrow.—A bright orange colored squash for autumn, very productive,	.10	.15	1.00
Fordhook.—A desirable running variety,	.10	.15	1.25
Mammoth Chili.—Extra large, grows upwards 100 pounds at times,	.10	.15	1.25
Golden Hubbard.—Similar to the standard Hubbard but smaller and earlier and of a golden red color,	.10	.15	1.25
Cocozelle.—Compact bush growth, fruit oblong, foot or more in length, skin dark green with stripe,	.10	.20	1.50
Blue Hubbard.—Popular variety,	.10	.20	1.75
Table Queen.—Fine for baking,	.10	.20	1.75

Hubbard Squash

TOMATO

Livingston's Beauty.

Sow the seed in March or April in hot bed. Transplant when plants are five inches high to open ground, after danger from frost has passed. Should be set four feet apart each way, on mounds of earth, to allow foliage to open and sun to reach the fruit.

	Per pkt.	Per oz.
New Dwarf Champion. —Most popular of dwarf varieties, fruit deep purplish red,	\$0.10	\$0.40
Livingston's Beauty. —A large round solid smooth variety, a glowing crimson color,	.10	.35
Acme. —A standard variety, round, bright pink in color,	.10	.35
Livingston's New Stone. —Large, smooth, solid, scarlet color,	.10	.30
Ponderosa. —Largest variety grown,	.10	.50
Yellow Plum. —Small, elegant, fine for preserves,	.15	.50
Chalk's Early Jewell. —About one week later than Earliana, large, solid fine quality,	.10	.35
Spark's Earliana. —The earliest large red grown, exceedingly productive,	.10	.35
Bonnie Best. —Very early, vigorous grower, smooth, brilliant, scarlet fruit, very prolific,	.10	.40

TURNIP

For early varieties sow as soon as the ground can be worked in spring.

For fall and winter use, seed should be sown from the middle of July to middle of August, seed generally sown broadcast, using one pound to the acre.

Early Flat Dutch.

	Per oz.	Pkt.	Per lb.
Early Purple Top Milan. —Finest early,	\$0.15	\$1.25	
Early Flat Dutch White. —A popular market variety,	.10	.65	
Purple Top Strap Leaf. —One of the standard flat varieties,	.10	.65	
Yellow Globe. —Fine for table use, fall and winter,	.10	.65	

	Per oz. pkt.	Per lb.
Golden Ball.—Very tender, fine flavored,	\$0.10	\$0.65
White Egg.—Handsome, oval form, thin skin,	.10	.70
Cow Horn.—Pure white, except at top,	.10	.70
Purple Top White Globe.—A thick, round, quick growing variety,	.10	.65

RUTA-BAGA

Seed should be sown in drills thirty inches apart, thin out to one foot apart in the row.

	Per oz. pkt.	Per lb.
American Purple Top Swede.—Flesh deep yellow, free growing,	\$0.10	\$0.75
White Rock or Sweet German.—White and sweet, a good keeper,	.10	.75
Skerving's Improved.—Standard field variety,	.10	.75
Long Island Purple Top.—Yellow turnip of best quality,	.10	.75

HERBS

	Per pkt.	Per oz.
Summer Savory,	\$0.10	\$0.20
Sage,	.15	.50
Sweet Marjoram,	.15	.50
Thyme,	.15	.50
Dill,	.10	.15

TOBACCO

We are very careful in the selection of our tobacco seed, growing much of it on our own farm and saving the seed from only such plants as bear the correct type of leaf. We buy only of the most reputable growers. This seed is thoroughly blown which removes all the light seed, as we believe the heavier seed makes the strongest plants.

	Per 1/4 oz.	Per oz.	Per lb.
Willow Brook Broadleaf.—Specially grown and selected,	\$0.25	\$0.50	\$7.00
John Williams' Broad Leaf,	.25	.50	7.00
Havana, Special selected type, round point leaf, very choice,	.25	.50	7.00
Cuban Type, shade grown,	.40	.75	9.00
Round Tip, (not Havana)	.40	.75	9.00

It Pays to use
OUR COMPLETE FERTILIZER
FOR THE TOBACCO CROP.

Green Magic and How to Make a Better Lawn.

Green Magic! A little planting, a trim, clean-cut, green lawn, and the home takes on a new pride and an added value.

A good lawn is a constant source of satisfaction and a profitable investment. Like a coat of paint on the house, it adds dollars and cents to the value of your property. And a good lawn is easy to make if you start right with good seed and follow the few simple rules given herein.

Don't expect the wrong kind of seed to grow the right kind of grass. Beware of the mixture that depends on short lived grasses to give "quick results." A thick, **lasting** turf is produced only by a clean, correctly proportioned mixture of true turf grasses.

The nurserymen have an apt saying, "Don't plant a dollar bush in a fifty cent hole." The thought applies with equal force to lawns. Building for permanence requires the use of good lawn seed, but even the best of seed must have a fair chance. Neglect of proper preparation of the seed bed may not show the first few months, but sooner or later will make it necessary to do the whole job over again. Start right — prepare the soil well — sow good seed — and have a good lawn — from now on.

The Soil

The physical (or mechanical) condition of the soil is more important than its chemical constitution. If the top soil has been removed in building or grading operations, leaving only raw, stiff subsoil, replace it with top soil from an old meadow, as free from weeds as possible; or make a new topsoil by digging in humus, leaf mold or old, well-rotted manure in liberal quantities. Fill in or drain low spots where water is likely to collect. Dig up or plow the surface and thoroughly loosen it to a depth of at least 6 inches — better 8. This will encourage deep rooting and insure the permanence of the turf through the hot, dry spells of mid-summer.

Fertilizing

Even the best of topsoil will be benefited by the addition of a complete fertilizer. Avoid fresh manure for it invariably contains weed seeds. Old, rotted manure or compost is safe. Sheep manure is good, and so are the concentrated, complete lawn and garden fertilizers which have the additional advantage of being clean and odorless.

The Seed Bed

After digging up the soil and applying fertilizer, rake the surface as fine and even as possible, removing stones and lumps. Then, if time permits, let it stand for a week or ten days. This will give the soil a chance to settle and any weeds seed will sprout. Another and final raking will destroy the weeds and correct any inequalities in the surface which the process of settling has revealed. Now you are ready to sow the seed.

Choice of Seed

A good lawn grass mixture should be composed of nothing but true turf grasses in the right proportions.

Our Lawn Grass Mixture is composed exclusively of the best seeds of the choicest fine bladed grasses free from weeds. Sow a pound to every 200 sq. ft. (equals a space ten by twenty feet) double the quantity may be used without harm.

Price per lb. 35c. 5 lb. sacks \$1.50 50 lb. sacks \$14.00 100 lb. lots 26c. per lb.

Shady Lawn Seed

Price per lb. 40c. 5 lb. lots \$1.75 50 lb. sacks \$16.50 100 lb. lots \$31.00

Alphano Humus

At Alphano, New Jersey, there is a wonderful deposit of humus so free from acid and so rich in plant foods that when properly drained and deeply cultivated it at once produces abundant crops. Alphano humus is an all-around soil builder and fertility producer. It is a black velvety enricher that is odorless and free from weed seeds. It comes to you in a dry, finely granulated form, making it easy to thoroughly mix with the soil. It is liberally supplied with nitrogen, phosphate, potash and lime, in both organic and mineral combination.

For new lawns spread on Alphano Humus at the rate of 200 pounds to every 1000 square feet and thoroughly mix with soil by raking, then seed and roll.

Get our booklet on this material showing how to make beautiful lawns.

In lots of 100 lbs. to 500 lbs., \$1.50 per cwt.

In lots of 500 lbs. to 2000 lbs., \$1.25 per cwt.

Ton lots and over, \$1.20 per cwt.

Our Special Lawn Fertilizer

For Spring and Early Summer Treatment

To maintain a luxuriant lawn, proper fertilizing is necessary.

The old method of applying stable manure, so objectionable because it carries weed seeds as well as being unsightly and odorous, is no longer practiced. We manufacture a lawn dressing carrying all the essential plant foods so necessary to produce luxuriant growth and dark, rich, green color so much desired.

We recommend for lawns that it be used at rate of 100 lbs. for 7,500 sq. ft.

PRICES (Delivered) :

100 lbs.	50 lbs.	25 lbs.	10 lbs.	5 lbs.
\$3.50	\$1.90	\$1.25	\$0.75	\$0.40

We also have for Lawns and Gardens:

	100	50	25	10	5 lbs.
Special Garden Fertilizer	\$3.50	\$1.90	\$1.25	\$0.75	\$0.40
Bone Meal	3.50	2.00	1.35	.75	.40
Sheep Manure	3.00	1.75	1.15	.65	.35
Pulverized Poultry Manure	3.50	1.90	1.25	.75	.40
Hard Wood Ashes	3.00	1.75	1.15	.65	.35
Lime	1.50	.90	.60	.40	.25
Tobacco Dust	2.50	1.50	.85	.50	.30
Tobacco Stems	1.75				

Water Weight Lawn Rollers

The water weight lawn roller has almost entirely superseded the old fashioned cast iron roller. By regulating the amount of water it can be made to weigh as desired. We offer it in three sizes:

No.	Diameter	Width of Drum	Weight Empty	Weight Full	Price
601	14"	20"	50 lbs.	150 lbs.	\$15.00
602	18"	24"	75 "	330 "	18.50
603	24"	24"	100 "	440 "	22.00

LAWN MOWERS

"PENNSYLVANIA"

Sizes 15, 17, 19, and 21 inch.
High Wheel.

The "Pennsylvania" has been
recognized for many years as
the standard among Lawn
Mowers.

Cuts longer grass, requires less
repairs than any other mower
made. Used on the State Capitol
grounds and by all first class
gardeners everywhere.

GREAT AMERICAN

Sizes 15, 17, 19 and 21
inch. High Wheel.

This Mower is of the
same manufacture as the
"Pennsylvania," and is
a high grade machine
throughout. Has ball-
bearing equipment which
insures less friction and
wear. It has been sold
by us for eleven years
and given highest sat-
isfaction.

DELTA

A good mower at a low price.

Sizes 14-16 and 18 inch

Made by Penn. Lawn Mower Co.

List of Grass, Clover and Millet Seed

(At market Prices)

Timothy, or Herd's Grass. One of, if not the commonest and best known grasses. Very valuable for hay. Perennial, fibrous and often bulbous rooted. (45 lbs. to the bushel.)

Red Top. Is a fine permanent grass. Often sown with timothy and red clover, in which case the clover soon disappears to be replaced by timothy, which in turn gives way to the red top. Very valuable in mixtures for permanent pastures.

Chaff Red Top 10 lbs. to the bushel. Fancy or cleaned 35 lbs. to the bushel.

Kentucky Blue Grass. Also called June grass. Root-creeping, perennial. flowers in June. It requires about two to three years to become well set and does not arrive at perfection as a pasture grass until the third or fourth season.

(14 lbs. to the bushel.)

Orchard Grass. A perennial grass, flowers from June to July. Very valuable for pastures, also in connection with timothy and clover for hay crops. When used with timothy use one bushel orchard and 8 lbs. clover. If sown alone use three bushels to the acre. (14 lbs. to the bushel.)

Sudan Grass. A quick growing annual. A forage crop of great value. Stools freely. Grows 3 to 5 ft. tall, two and sometimes three crops can be cut. Grows until frost. When sown broadcast use 2½ lbs. per acre.

Rhode Island Bent. Root-creeping, perennial, flowers in July. Very valuable for lawn purposes. Sow from three to four bushels to the acre.

(10 lbs. to the bushel.)

Large Red, or Mammoth Clover. Grows from four to five feet high; stocks so coarse that cattle will eat but leaves only, but by its judicious use, exhausted lands may be reclaimed. (60 lbs. to the bushel.)

Medium Red Clover. The most important of all the varieties of clover for the practical purposes of agriculture. Sown with timothy and other grasses it produces desirable hay or pastures. (60 lbs. to the bushel.)

White Clover. The value of this clover is well known; it is found in most every natural pasture. It is adapted to all soils. Being deep-rooted it withstands drought when grown on dry, sandy sections. It should form a part of all mixtures for permanent pastures. (60 lbs. to the bushel.)

Alsike, (Clover). This is one of the hardy varieties. It resists cold, extreme drought and wet, and on rich warm soils yields immense crops of hay, or pasture of good quality. (60 lbs. to the bushel.)

Alfalfa (Clover). A heavy forage crop doing well in almost all localities. Requires well limed soil and good drainage.

Hungarian (grass) Millet. Splendid forage crop for light land. On rich land two crops may be grown the same season. Withstands drought and yields abundantly. (48 lbs. to the bushel.)

Golden, or German Millet. A heavier cropper than the Hungarian, and needs a longer season and a stiffer soil, stands up well, is easily cured, makes a coarse, harsh hay, which is greedily eaten by all kinds of stock. (50 lbs. to the bushel.)

Japanese Millet. This is by many considered the most valuable of all forage plants. It makes more hay than German millet or any other. Although it grows large, sometimes seven or eight feet high, the hay is of excellent quality. It is adapted to all sections.

Use O. & W. Special Grass Fertilizer
The Fertilizer That Makes Grass Grow.

Grain and Miscellaneous Seeds for Fodder Ensilage and Soiling Crops.

Inoculate this
Seed with
HUMOGERM

(All at Prevailing Market Prices.)

Inoculate this
Seed with
HUMOGERM

Ensilage and Fodder

The productive capacity of the farm for stock purposes is greatly enhanced by the growing of silage crops.

It has become well known that by the feeding of silage there is a marked increase of profits to the dairy farmer.

We have a selected stock of seeds for silage and green fodder crops as listed below.

Central Pennsylvania. A popular ensilage variety.

Eureka. The greatest of Ensilage varieties. A White Corn of extra large growth leafy and yielding immense returns for silage.

Leaming's Dent Corn. A very early and productive variety.

Mastodon Dent Corn. A strong growing, early, with large stalks and large grain.

Improved Canada Corn.—The standard yellow flint corn.

Early Yellow Dent. Connecticut grown; a dent corn that will mature in this latitude.

Longfellow Yellow Flint. A well known flint variety.

8 Row Yellow Flint. A blue ribbon Connecticut grown seed.

Canada Field Peas. Grown largely with oats as fodder crop. At market prices.

Leguminous Plants as Soiling Crops

All the leguminous plants (peas, clovers and beans, etc.,) have the power of taking up the free nitrogen in the air and converting it into available forms of ammonia so very valuable as a fertilizing ingredient to the soil.

Therefore the roots (or, as in some cases where the entire plant is turned under) provides a large supply of available ammonia for the crops which are to follow.

Cow Peas,	.	.	.	.	.	.	at lowest market prices
Soja Beans (Soy Beans),	.	.	.	.	.	.	" " "
Mammoth Clover,	.	.	.	.	.	.	" " "
Medium Clover,	.	.	.	.	.	.	" " "
Vicia Villosa, or Hairy Vetch,	.	.	.	.	.	.	" " "

GRAINS

Barley,	.	.	.	.	.	.	at lowest market prices
Japanese Buckwheat,	.	.	.	.	.	.	" " "
Rye,	.	.	.	.	.	.	" " "
Seed Oats,	.	.	.	.	.	.	at market price

Use "O. & W" Special Grain and General Crop Fertilizer

Legume Inoculation
HUMOGERM

A Seed and Soil
INOCULANT

PRICES: ¼ bu. 35cts., ½ bu. 60cts., 1 bu. \$1.00, 2½ bu. \$2.25.

Northern Grown Certified Seed Potatoes

Our certified seed potatoes have been carefully selected from fields in Aroostook County, Maine. We have selected seed:

1st From fields showing a minimum of disease.

2nd From fields showing a vigorous yield and true to type.

No argument should be necessary to convince growers of the advantages of Northern grown Certified seed potatoes. This has been very clearly set forth by the Conn. Agricultural College at Storrs, Conn.

We quote from a letter received by us three years ago from the above college, after summarizing the benefits to be derived they say: "The policy of the extension service of the Storrs Agricultural College is:

1st To recommend Certified Northern grown potatoes if they can be obtained.

2nd If Certified seed stock cannot be obtained to recommend selected Northern grown seed.

3rd To discourage farmers in the use of home grown seed."

PROFITS IN POTATOES

Increased profits from potatoes depends largely upon increased yield, better quality and lower production cost.

Acre costs are practically fixed. Machinery and labor saving devices reduce them. Proper spraying and cultivation improve yields and quality and prevent unnecessary losses.

PROPER SOIL CONDITIONS

The potato plant is a poor forager, but it has a good appetite. It does best where it has a thoroughly and deeply prepared seed bed in which to grow its roots. A high yielding crop requires good roots and tops. The kind of soil affects very greatly the yield and quality of the tubers.

Loams are best. Sandy soils dry out too rapidly. Clay soils are too heavy.

Potatoes do not grow well in a wet soil, but on the other hand the tubers cannot develop unless the soil has ample moisture holding capacity. This is secured by deep plowing, the incorporation of organic matter in the soil, and subsequent frequent shallow tillage as long as the field can be worked. It is especially important to turn under a good clover or alfalfa sod and to plant the potatoes on this.

We speak from experience when we say it is a mistake:

To cut seed a long time before using;

To allow the Fertilizer to touch the seed pieces;

To allow the seed pieces to remain in the sun uncovered;

To plant seed grown in any section but the far North;

To plant less than five barrels per acre;

To expect a good crop from small seed pieces;

To plant potatoes without first thoroughly pulverizing the soil;

To buy seeds from any but reliable Seedsmen.

Harvesting Potatoes in Aroostook County, Maine.

Certified Spaulding Rose. — This is a Rose variety, pink skin, good table quality and an enormous yielder.

Certified Irish Cobbler. — An excellent extra early variety, will mature in seven weeks from time of planting; in color pure white with deep eyes, usually of good cooking quality.

Certified Improved Green Mountain. — This variety is too well known to require any description; it is recognized as the standard of excellence in all New England; white skinned, oval formed, smooth and attractive and a good yielder.

FEEDING THE POTATO PLANT

The potato, a highly developed crop, requires as careful feeding as does a high-producing dairy cow.

This crop grows in a relatively short period. It must be given a quick start, carried through summer droughts without serious checking of growth, and brought to maturity before frosts come in the fall.

In order to produce the necessary number of well-matured tubers, there must be present throughout the season a large amount of available plant food. No other farm crop needs this more than the potato. It needs plant food, first, well distributed through the soil, to develop a vigorous root system, and, secondly, in large enough quantities so that these roots may take it up and deliver it to the stems and leaves, where, through the action of the chlorophyll and sunlight, starch is formed. Starch is the material on which the food value of the potato depends. Stable manure is good but unbalanced, and it should not be used except in combination with other plant foods. Fresh stable manure, too, produces a condition in which potato scab thrives, if this disease is present.

PLANT THICKLY.

The Eastern States, where potato growing has become a specialized business plant potatoes in rows 30 inches to 36 inches apart, with the hills from 12 inches to 18 inches apart in the row. These States have the highest yields per acre in the country. Some of the Middlewestern States, which produce potatoes simply as farm crops, plant this crop in check rows 3 feet by 3 feet or even $3\frac{1}{2}$ feet by $3\frac{1}{2}$ feet. This is not an economical use of the land. These States lead in total production but have only average acre yields of 80 or 90 bushels to the acre. Land, labor, seed, etc., are too expensive to grow potatoes on this basis. By planting as in the East, the potatoes grow large enough, are more uniform, excessive size is avoided, and the yield from the same amount of ground is greatly increased. Prepare the land properly for the crop, plant closely, and then feed the crop.

THE IMPORTANCE OF SPRAYING

Our Agricultural Colleges and Experimental Stations backed by both the State and Federal Governments have been largely instrumental in awakening the general public to the real importance of spraying. This has been accomplished through numerous bulletins and circulars issued from time to time and distributed by tens of thousands, so that first hand and reliable spraying information has been sent out broadcast into every nook and corner of the United States. In fact, so thoroughly has the matter of spraying been investigated and advertised, that no one today is ignorant of its importance, but, there are yet those who have not given it attention for different reasons, while others are profiting by this neglect and getting better prices right along for their products.

"Better Fruit and more of it" has become the slogan of every fruitman for it means higher prices for his crops. But this also means better care of his trees and vineyards — higher cultivation and protection from the enemies of tree, plant and vegetable life by proper fertilization, pruning and spraying at the right periods. In fact, spraying is now considered so important that practically all fruit offered for sale today in the public markets is of the sprayed kind. No other will do. Unsprayed fruit is usually small, knotty and spotted and cannot compete with the sprayed article, even if sold at a much lower price.

PLANT AND TREE ENEMIES

Two kinds of enemies attack fruit trees and plants, namely; insects and fungous diseases. The application of substances, usually liquid, to the tree or plant for the purpose of preventing or destroying these constitutes spraying, insecticides being used for the insects and fungicides for the fungous growths. We spray to destroy insects and to prevent fungous diseases. For convenience, injurious insects are usually divided into two classes, based upon their feeding habits; eating or chewing insects and sucking insects.

FEEDING HABITS OF INSECTS

Chewing insects are those having jaws by means of which they bite off and eat portions of the tissues of the plant, such as foliage, fruit buds, tender bark, etc. Examples of this class are — the codling-moth which causes wormy apples, the plum curculio, the potato "bug" or beetle, caterpillars, etc. Most of the insects of this class are very easily controlled by applying to their food arsenical poisons, such as Paris green and arsenate of lead which is placed within their feeding range to be found by them sooner or later. It is with this class that success depends greatly upon spraying at the proper time; for example, the codling-moth caterpillar may be killed if there is some poison on the apple just as the insect eats its way in, but after once getting into the fruit it is safe.

Sucking insects are those furnished with a beak or slender tube with which they pierce the plant tissue and suck out the sap. Examples of this class are San Jose scale, oyster scale, scurfy scale, aphias, plant lice, etc. These insects are safe from poisons because we cannot get any poison into their food and must be killed by a direct application of such insecticides as will kill by contact, of which the most common is lime sulphur. In fighting this class of insects very thorough work is required, for every individual insect must be hit by the spray.

FUNGOUS DISEASES

Fungous diseases are parasitic consisting of plants or growths of low form, which live on other living plants. Examples, apple and pear scab; black, brown and bitter rot, mildew, etc. These diseases are disseminated almost wholly by the means of spores, which are extremely small, disk-like bodies corresponding to the seed of higher plants and are usually borne on the surface. These spores are produced in great abundance and each one is capable of starting a new fungus. They are carried from one plant to another by means of wind, water and insects. For fungous diseases, then, a spray is required which will kill the spores and the important point is to commence spraying with fungicides before the disease presents itself, as spraying for fungous diseases is a preventive rather than a cure. For this purpose the combination of lime and blue vitrol, known as Bordeaux mixture, is the principal remedy. Here again thoroughness is of the utmost importance.

Insecticides and Fungicides

Arsenate of Lead — Chipman Brand contains over 30% of arsenic oxide and is exceptionally effective in controlling many chewing insects. It is practically free from water soluble arsenic, providing safety against burning. Is extremely fine and fluffy, insuring evenness of distribution when applied and affords an adhesive protective coating of poison.

Directions: —

These directions are supplied by us gratuitously, and are believed to be reliable and of value but are in no way guaranteed.

For spraying fruit, such as apples, pears, cherries, grapes, berries, etc., use 1 to 1½ lbs. of Dry Arsenate of Lead to each 50 gallons of water or fungicidal spray. Unless used with Lime Sulphur, Bordeaux Mixture or some fungicide containing Lime, always add Milk of Lime, made by slaking 2 or 3 lbs. of Stone Lime to every 50 gallons of spray solution.

For use on vegetables, such as potatoes, tomatoes, squash, cucumbers, beans, melons, cabbage, cauliflower, etc. use from 1 to 2 lbs. of Dry Arsenate of Lead to each 50 gallons of water or Bordeaux Spray.

For dusting potatoes, tobacco, etc. mix each part of Dry Arsenate of Lead with 7 parts Hydrated Lime.

Follow carefully detailed instructions from U. S. Department of Agriculture and State Experiment Stations.

Bordeaux Mixture Powder — Chipman Brand. A dry powdered fungicide excellent for many diseases of fruit and truck crops. Requires only the addition of water to be ready for use. It is particularly adapted for use on potatoes in control of blight. Eight lbs. of powdered Bordeaux to 50 gallons of water. If the blight is very serious, it is sometimes advisable to use ten lbs. to 50 gallons of water.

Bug Death — A non-arsenical Insecticide and Fungicide for many plant-eating bugs and worms.

Lime Sulphur — We offer both Dry and Liquid Concentrated Lime Sulphur to suit your preference. Both are uniform, highly concentrated, dependable products. For dormant spray, use 1 gallon Liquid Lime Sulphur to 9 gallons of water or 12 to 15 lbs. of Dry Lime Sulphur to 50 gallons of water. For summer applications, use 1¼ gallons of liquid or 3 to 4 lbs. of Dry Lime Sulphur to 50 gallons of water.

Paris Green — is still the old reliable insecticide for killing potato bugs, tobacco cut worms, etc. Chipman Brand Paris Green contains a maximum amount of combined arsenic, and a minimum amount of water soluble arsenic. It is light in gravity, very finely divided, insuring uniform and economical covering of the vines. It may be applied as a dust or as a wet spray.

Pyrox — controls insects that chew, such as the potato bug. Pyrox also repels leaf hoppers which cause hopper burn. It is important that an insecticide be strong enough to kill these insects, and yet not injure the foliage to which it is applied. Pyrox will not burn if applied at proper strength, but actually invigorates the foliage.

Nicotine Sulphate — Our Nicotine Sulphate is a standard, uniform product containing 40% Nicotine. For the control of aphids (plant lice) and other sucking insects on most crops, use ¾ to 1 pint Nicotine Sulphate in every 100 gallons of spray or 1 teaspoonful to 2 qts. of water. It is advisable to add Nicotine Sulphate to other sprays.

and Myers graduating Vermorel nozzle for open head barrel. Price \$15.00. **Net Cash Price \$14.25.**

Cut below shows Myers No. 6 Overhead Four Row Adjustable Potato Sprayer, mounted on plank that bolts to bottom of wagon box, and is complete with all hose and nozzles. The adjustable features adapt it to any kind of work or condition—nozzles adjustable in width to suit any width row and are so arranged that they discharge the spray either directly downward on top of the plant or either forward or backward as desired—can be

FIG. 480

Figure 480 illustrates iron pipe extension made of $\frac{1}{4}$ in. steel pipe threaded at both ends. Price 4 ft. length with coupling 50¢. Price 8 ft. length with coupling 80¢.

Myers Barrel Spray Pumps

No. R318B—Myers Cog Gear Barrel Spray Pump, complete with one lead of 15 feet of $\frac{1}{2}$ inch 5 ply discharge hose, graduating Vermorel nozzle, and mechanical agitator for closed head barrel. Price \$16.00. **Net Cash Price \$15.20.**

No. R318—Myers Cog Gear Barrel Spray Pump only, with mechanical agitator but without hose or nozzle. Price \$12.00. **Net Cash Price \$11.40.**

No. R305B—Myers Cog Gear Barrel Spray Pump with both jet and mechanical agitators, complete with 15 feet of $\frac{1}{2}$ inch 5 ply spray hose

raised or lowered a distance of 20" for spraying small or large plants.

The Boom is adjustable in width from 6 ft. 1 in. narrowest point, to 11 ft. 3 in. widest point, thus adapting itself to any and all conditions. Will

pass through a 7 ft. gate. Can be used in connection with any Barrel Spray Pump. The cut at left shows Myers No. R318 Spray Pump being used with this sprayer.

No. 6—Myers Hand Overhead 4 row adjustable sprayer complete with all necessary hose and nozzles. (Pump and Barrel not included).

Price \$20.00.

Net Cash Price \$19.00

The Myers Cog Gear Spray Pump

(Double Acting)

With brass valves and ground bevel brass seats, 2" seamless brass removable cylinder, hemp packed plunger and double lever shut-off discharge.

No. R316 B Pump complete, 50 gallon barrel mounted as shown, with pressure gauge, one 15 ft. lead of $\frac{3}{8}$ in. 7 ply discharge hose, one Fembro nozzle, one 8 ft. pipe extension with lever shut off and mechanical agitator.

Price \$54.00 Net Cash Price \$51.30

No. R316 C Pump complete, 50 gallon barrel mounted as shown, with pressure gauge, two 15 ft. leads of $\frac{3}{8}$ in. 7 ply discharge hose, two Fembro nozzles, two 8 ft. pipe extensions with lever shut offs and mechanical agitator.

Price \$60.00 Net Cash Price \$57.00

No. R336 B. Myers Portable Sprayer

Complete as shown in illustration, with dasher agitator, 15 feet $\frac{1}{2}$ in. 5 ply discharge hose, 8 foot extension and Vermorel nozzle.

Price \$26.00 Net Cash Price \$24.70

No. R324 Myers Cog Gear Lever Bucket Spray Pump

With agitator, complete with detachable hose and graduating Vermorel fine sprinkling and solid stream nozzle.

Price \$6.50
Net Cash Price \$6.20

No. 327½ Myers Little Giant Brass Bucket Spray Pump

With agitator, complete with hose and imperial combination fine, coarse spray and solid stream nozzle, with malleable foot rest.

Price \$4.30
Net Cash Price \$4.10

The Hudson Perfection Sprayer

Combines all the essential features of a successful compressed air sprayer. The tank is riveted and soldered, the pump is all brass, the nozzle is the most satisfactory shut-off nozzle made, it will close tight under any pressure and there is consequently no leakage. It will handle all solutions.

No. 110 Brass Perfection \$9.00 net

No. 140 " Junior 7.00 "

Vermorel (Knapsack) Sprayer \$20.00 net

D. & B. Galv. Pressure Can 5.00 "

JOHN DEERE MODEL "L" TRACTOR DISC HARROW WITH YIELDING LOCK

The John Deere Model "L" Disc Harrow is a good investment for any farmer who owns a tractor and who desires a harrow that can be controlled entirely by the man on the tractor.

Two cranks easily reached by the operator of the tractor permit the independent angling of front or rear sections. Either section can be straightened quickly when in danger of stalling the tractor in heavy pulling, or the gangs can be set in any position from a straight line to extreme working angle *without stopping or backing*.

Model J., 24-16" discs	6 ft. cut,	Price \$120.00	Net Cash Price \$114.00
" L, 28-16" "	7 ft. " "	130.00	" " " 123.50
" L, 32-16" "	8 ft. " "	140.00	" " " 133.00

HALLOCK WEEDER

The teeth are round and each one can be raised to different heights. Does most thorough and perfect work. May be adjusted for either hard scratching or for light work. Suitable for all soil conditions.

Price \$16.00 Net Cash Price \$15.20

A standard weeder having curved teeth.

Stevens Broadcast Fertilizer Sowers

Made in Two Sizes:

5 feet, 10 inch, \$75.00

Net Cash Price 71.25

8 feet, 3 inch, \$80.00

Net Cash Price 76.00

Stevens Between the Row Sower

For sowing fertilizers between rows or for doing other surface work, as some tobacco growers claim that a part of the fertilizing should be done after the first hoeing. The machine is made with wheel inside the frame, and covers a space of 12 inches wide with fertilizer. It has three cultivator teeth, adjustably attached to back end of machine for covering. Price, \$32.00. Net Cash Price \$30.40

No. 21 McWhorter Wheelbarrow Sower

A very popular machine for sowing fertilizer between the rows.

Price \$23.00 Net Cash Price \$21.75

STALK CUTTERS

These machines are great labor savers. Any farmer raising a considerable acreage of corn, Primed or Shade tobacco should own one.

Deere Seven knife—complete with Neck Yoke and Doubletrees

Price \$59.50 Net Cash Price \$56.50

Deere Nine knife—complete with Neck Yoke and Doubletrees

Price \$63.00 Net Cash Price \$59.85

Ohio Seven knife—complete with Neck Yoke and Doubletrees

Price \$51.50 Net Cash Price \$48.95

Ohio Nine knife—complete with Neck Yoke and Doubletrees

Price \$54.00 Net Cash Price \$51.30

STEEL LAND ROLLER

The drums of this roller are heavy steel sheets not easily dented. The ends are closed to keep out dirt and trash. The frames are heavy angle steel securely bolted to steel and brackets.

Drums are mounted on $1\frac{3}{4}$ inch axle of machinery steel. The axle ends are turned perfectly round and mounted in heavy wood bushings which holds a generous amount of oil. The seat is large and comfortable and hung so as to take the weight of the tongue from the horses' necks.

8 Feet in Length - Weight 600 lbs.

Price \$50.00, Net Cash Price \$47.50

John Deere Two Way Sulky Plows

Combined in the John Deere two way plow are a number of strong, valuable and distinguishing features. Among these are the patent auto foot frame shift, all steel and malleable frame and steel arch, long malleable beam clamp, automatic shifting hitch and horse lift, unusually wide bearing base and adjustable jointers. For hillside or irregular fields, where it is desirable to throw earth all one way, there is no equal to the two way.

Small size combination steel M. B. 2 Horse Hitch, Price \$110.00 Net Cash Price \$104.50
 Large size combination steel M. B. 3 Horse Hitch, Price 114.00 " " " 108.30

John Deere Tractor Plows

John Deere Tractor Plows are made to meet every Tractor Plowing requirement to best advantage. Into their construction goes the experience of more than 80 years of leadership in plow-making. There is special satisfaction to every user in the continued good service the John Deere Tractor Plows give.

No. 5 —1441S. 28 inch cut with combination Jointer and Rolling Coulters,
 Price \$128.00 Net Cash Price \$121.60

No. 40—1441S. 28 inch cut with combination Jointer and Rolling Coulters,
 Price \$105.00 Net Cash Price \$99.75

The No. 40 Plow is designed to follow the Fordson Tractor.

Syracuse Two Horse Plows

John Deere Syracuse No. 821 Series Truss Steel-Beam Hillside Plows

Ample throat room and close fitting joints prevent clogging. Choice of white iron or tempered steel mouldboards adapts them to a variety of soils. Steel and malleable iron give maximum strength and unusual light weight. Two-piece truss-style beam will not bend or break. Renewable shoe protects standard and serves as landside.

No. 821 Chilled comp. with wheel and jointer	Price \$32.40	Net Cash Price \$30.80
No. 821 Steel comp. with wheel and jointer	" 34.90	" " " 33.15
No. 822 Chilled comp. with wheel and jointer	" 31.40	" " " 29.80
No. 822 Steel comp. with wheel and jointer	" 33.65	" " " 32.00

John Deere Syracuse 31 Series Plows

Furnished with steel clevis, soft center steel mouldboard, solid steel landside cast shoe and chilled share.

No. 31 (size of furrow: Depth 5 to 8 inches; width, 12 to 15 inches). Price complete with wheel and jointer	\$31.65	Net Cash Price \$30.05
No. 32 (size of furrow: Depth 5 to 7½ inches; width 10 to 13 inches). Price complete with wheel and jointer	\$29.65	Net Cash Price \$28.15

John Deere Syracuse 400 Series Straight Landside Chilled Plows

In hard, dry ground or in gravelly soil these plows give remarkable results. Detachable chilled iron; keen-edge shin piece enables you to renew cutting edge of mouldboard quickly and at small expense — a big advantage when plowing in sod or stiff clay.

No. 401 Price complete with wheel and jointer	\$30.15	Net Cash Price \$28.65
No. 402 Price complete with wheel and jointer	28.15	" " " 26.75

Syracuse One Horse Plows

This represents the original Syracuse Chilled Plow.

No. 5-78 with wheel only Price \$13.15 Net Cash Price \$12.50

No. 52L with wheel only	Price \$17.25 Net Cash Price \$16.40
" " " " and Jointer	" 20.85 " " " 19.80
No. 53L with wheel only	" 19.25 " " " 18.40
" " " " and Jointer	" 22.85 " " " 21.70

No. 823 chilled M. B. with wheel only	Price \$20.65 Net Cash Price \$19.60
" " " " " " and Jointer	" 25.90 " " " 24.60
No. 824 chilled M. B. with wheel only	" 15.65 " " " 14.85

John Deere—Syracuse Contractors Plow

The No. 1 turns furrows 5 to 9 inches deep and 12 to 15 inches wide. Built to stand the strain—extra heavy beam, share and landside, steel wheel frame, loop handle wear irons.

Price with gauge wheel and extra share

Price \$32.00 Net Cash Price \$30.40

Leroy Plows

No. 107 Leroy chilled M. B. with wheel only	Price \$18.65	Net Cash Price \$17.70
No. 109 Leroy chilled M. B. with wheel and jointer	" 28.15	" " " 26.75
No. 109 Leroy steel M. B. with wheel and jointer	" 29.65	" " " 28.15
No. 110 Leroy chilled M. B. with wheel and jointer	" 30.15	" " " 28.65
No. 110 Leroy steel M. B. with wheel and jointer	" 31.65	" " " 30.10

No. 30 Leroy steel M. B. with wheel and jointer Price \$33.65 Net Cash Price \$32.00

John Deere-Van Brunt Disc Fertilizer Drill With Grass Seed Attachment

Distributes any standard fertilizer and plants grain at the same time — also grass seed, when attachment is used; or it will handle any one of the three alone. All feeds can be thrown out of gear and discs used for stirring soil without seeding or fertilizing. Each wheel drives half the feeds, insuring positive and steady operation. One-half of grain feeds can be used for finishing a field or seeding narrow places. Van Brunt Ad-

justable Gate Force-Feed is one of the best seeding devices made. Drill handles fertilizer in quantities from 65 to 1250 pounds per acre. Plants wheat, oats, barley, flax, rye, rice, alfalfa, peas, beans, corn, etc.

Size 11 x 7 furnished regularly with 1-pole and 2-horse evener.

Price complete with grass seed attachment \$185.00 Net Cash Price \$175.75

Arcadian Sulphate of Ammonia

The most concentrated nitrogenous top-dressing on the market. Ammonia 25¼% guaranteed.

Ammonia in a form quickly available but not readily leached from the soil.

Arcadian excels in mechanical condition. It is fine and dry, and easily spread by hand or by drill. The crop producing power of the ammonia is equal to that of any fertilizer.

Arcadian Sulphate of Ammonia contains no Borax.

Arcadian is the fertilizer for your orchard, for top-dressing your meadows and grain, and for your truck crops.

A "made in the U. S. A." product; it is the Great American Ammoniate.

For a quick-acting, nitrogenous top-dressing for orchards, small grains, vegetables or hay—we recommend ARCADIAN SULPHATE OF AMMONIA. Ask us about it!

UNIVERSAL STEEL LEVER HARROW

This harrow has proved very popular wherever used, especially in stony or rooty ground.

Deere—2 Section (60 teeth) with spanner	Price \$26.00	Net Cash Price \$24.70
“ 1 “ (30 “)	“ 14.00	“ “ “ 13.30
Ohio — 2 “ (60 “) with spanner	“ 24.00	“ “ “ 22.80
“ 1 “ (30 “)	“ 13.00	“ “ “ 12.15

CLARK'S CUTAWAY DOUBLE ACTION HARROWS

The Cutaway Double Action possesses every feature that adds efficiency, convenience or adaptability and economy to a disc harrow.

A4—Regular 16-16 inch discs 4½ ft. cut, 2 HH	Price \$72.85	Net Cash Price \$69.20
A5—“ 20-16 “ “ 5½ “ “ 3 HH	“ 87.45	“ “ “ 83.55
A6—Regular 24-16 inch discs 6½ ft. “ 3 HH	“ 94.50	“ “ “ 89.80
A6—“ 24-16 “ “ 6½ “ “ 4 HH	“ 97.35	“ “ “ 92.50

CLARK'S CUTAWAY HARROWS

Single Action with
Steel Head

This is a standard harrow, thoroughly well made, equipped with the justly celebrated Clark hard-wood journals. These journals outwear metal, give less friction and are cheaper to replace. Furnished with either solid or cut out discs.

A4—One horse, with shafts 8-16" discs Price \$42.30 Net Cash Price \$40.00

A6—Regular 12-16" discs, complete with neck yoke and eveners, Price \$52.00
Net Cash Price \$49.50

SINGLE ACTION
WITH
FORE-TRUCK

The above cut shows the Clark Cutaway Harrow equipped with tongue truck or fore carriage. This truck is all steel, durable and strong yet light; it has first, the adjustable hitch to meet the height of any team, second, adjustable tongue attachment to suit the height of any harrow; third, axle joint so that either wheel may run over clods, stones and other obstructions without affecting the even, regular draft of the harrow.

A6—Regular 12-16 inch discs, Price \$60.40 Net Cash Price \$57.50

Fore-truck as an extra, Price 10.00 " " " 9.50

Chicopee Single Action Harrow

With Fore-truck 12-16" discs.

Price \$53.00 Net Cash Price \$50.35

A good tool at a reasonable price.

Chicopee Single Action Harrow with Pole

Price \$45.00 Net Cash Price \$42.75

John Deere Model "B"

The John Deere Model "B" is a superior machine because of its flexibility—an important principle of construction that places it in a class by itself.

A third lever with an unusually powerful spring and a pivoted yoke enables the driver to give light or heavy pressure at inner ends of the gangs so as either to cut out dead furrows or to cultivate over ridges or back furrows without burying the harrow in the center.

Each gang of the Model "B" works independently—only the part passing over an obstruction is raised out of the ground. With a rigid harrow, the entire machine is lifted out and considerable ground left unworked. In other words, the Model "B" can readily be regulated to penetrate at even depth its entire width, and the pressure spring holds the gangs to the uneven surface of the ground at all times.

Double-angling levers give perfect control of the entire machine. When working on hillsides, this harrow does not crowd towards the bottom, as the lower gang can be given a greater relative angle.

The Model "B" Has Extra Strength Without Unusual Weight

12-16" Discs with pole and 2 Horse Hitch	Price \$60.00	Net Cash Price \$57.00
12-16" Discs with pole and 3 Horse Hitch	" 62.00	" " 58.90
12-16" Discs with Fore-Truck and 2 H.H.	" 68.00	" " 64.60
12-16" Discs with Fore-Truck and 3 H.H.	" 70.00	" " 66.50

ACME

Pulverizing Harrows

Warranty. I hereby warrant each and every part of each and every "Acme" Pulverizing Harrow against breakage for the term of one season after it leaves the manufactory or any of my storehouses, and I hereby authorize Agents and Dealers to FURNISH FREE NEW PARTS TO REPLACE BROKEN PARTS; the only stipulation being, that the farmer demanding such parts shall sign a statement that the breakage occurred in fair usage, which statement shall be countersigned by the Agent or Dealer from whom the Harrow was purchased.

DUANE H. NASH, Manufacturer.

No. 23

*Two-Horse Size.
Works 6½ ft. Wide.*

*Riding Harrow.
Flexible Style.*

The gang bars may be made rigid, when desired by means of braces provided for that purpose.

Price of No. 26, (two horse size)	\$33.00	Net Cash Price	\$31.35
Price of No. 23, " " "	27.00	" " "	25.65

Price of Harrow (one-horse size) \$21.00 Net Cash Price \$19.95

Meeker Smoothing Harrow

A perfect harrow and land roller combined. This harrow has become a great favorite among all classes of farmers and market gardeners.

It has four (4) sets of rollers containing 58 steel discs. These discs grind all lumps and save the work of raking and also mash small stones below the surface better than any field roller, leaving the land smooth and level.

6ft. x 8ft. Meeker with 10 inch discs Price \$40.00 Net Cash Price \$38.00

John Deere Spring Tooth Harrow

17 Tooth (2 section) cutting width 66 in. weight 260 lbs.

Price \$34.00 Net Cash Price \$32.30

Clipper Smoothing Harrow

One Section
Price \$12.50
Net Cash Price \$11.90

Two Section
Price \$22.00
Net Cash Price \$20.90

Three Section
Price \$33.00
Net Cash Price \$31.35

"KING OF THE CORNFIELD"

Corn, Bean and Pea Planter and Fertilizer Distributor

Every machine is warranted to be well made of good material, and guaranteed to do its work perfectly and satisfactorily with the different kinds of seeds, as we claim, if used according to directions.

Price \$45.00 Net Cash Price \$42.75

JOHN DEERE No. 999 CORN PLANTER

Widely recognized as the most accurate planter on the market. The John Deere Natural Cell-Fill, Edge-delivery seed plates, sloping hopper bottom, improved metal cut-off and knocker insure positive feed and unfailing accuracy. Plants accurately whether the hopper is full or nearly empty. Seed plates for handling every kind of corn; also beans, and many other seeds. Variable drop plants two, three or four kernels in each hill as desired. The number of kernels per hill can be varied merely by shifting foot lever, without stopping the machine.

Also varies the distance in drilling. Easy to

change from hilling to drilling. Underhung reel; a touch of the toe releases check wire, fertilizer can be checked with each hill or drilled along the row.

Price plain less check row and fertilizer attach.	Price \$ 75.00	Net Cash Price \$71.25
Price with fertilizer attach. less check row	" 105.00	" " " 99.75
Price with fertilizer attach. and check row	" 115.00	" " " 109.25
Automatic hilling attachment		" " " 4.00

"PLANET JR" HORSE TOOLS

Complete Descriptive Catalogue Sent on Application

"PLANET JR." NO. 8 Horse Hoe and Cultivator

No. 8—With depth regulator, lever, steel wheel and lever expander,	Price \$17.50	Net Cash Price \$16.60
No. 7—Same as No. 8, except it has no depth regulator,	" 17.00	" " " 16.15
No. 9—This tool is identical with the No. 7 Horse Hoe, but it has a plain wheel instead of one operating by a convenient lever,	" 15.50	" " " 14.70
No. 82—7 Tooth Horse Hoe and Cultivator combined	" 17.00	" " " 16.15
No. 83—7 Tooth Plain Cultivator	" 15.50	" " " 14.70

"PLANET JR." Twelve Tooth Harrow, Cultivator and Pulverizer

The above is a great labor saving tool. Try one and be convinced of its superior qualities. No farmer should be without one.

No. 90 D Price, plain \$11.75	No. 90 B With wheel \$14.75	No. 90 Complete, \$18.00
Net Cash Price \$11.15	Net Cash Price \$14.00	Net Cash Price \$17.10

We sell as an extra an eighteen and twenty-four inch Sweep, with special standard which is used in place of the pulverizer for leveling and weed cutting. It is adjustable in height. Furnished in place of pulverizer if desired.

"Planet Jr." Farm and Garden Tools

"PLANET Jr." No. 25

Hill and Drill Seeder and Double Wheel Hoe.

Price, \$21.50 Net Cash Price \$20.45

"PLANET JR." No. 4

Combined Hill and Drill Seeder, Wheel Hoe, Cultivator and Plow.

PRICE, complete, - - \$18.00

Net Cash Price \$17.10.

PRICE, as a drill only, 14.25

Net Cash Price \$13.55

This is a prime favorite with all gardeners, especially those who while not having a large acreage, derive a lot of pleasure in using a Combined Seeder and Cultivator of this kind in caring for the home garden.

"PLANET JR."

No. 31

Combined Drill Seeder and Wheel Hoe.

Price \$12.50 complete.

Net Cash Price \$11.90

Price as a Drill Seeder

only, \$10.00 (No. 31D).

Net Cash Price \$9.50

Price as a Wheel Hoe

only \$5.00, (No. 33).

Net Cash Price \$4.75

This is a thoroughly well made machine, and will sow even a small packet of any garden seed at any thickness desired with the greatest precision from $\frac{1}{4}$ to 2 inches deep.

"PLANET JR." NO. 16**Single Wheel Hoe, Cultivator,
Rake and Plow**

Price \$9.00

Net Cash Price \$8.55

"PLANET JR." No. 17**Single Wheel Hoe, Cultivator
and Plow.**

Price \$7.75

Net Cash Price \$7.35

"PLANET JR." No. 17½ Single Wheel Hoe

(Same as No. 17 less Plow)

Equipment:

1 pair six-inch hoes	} all steel tempered
3 steel cultivator teeth	
1 leaf lifter	

Price \$6.75 Net Cash Price \$6.40

"PLANET JR." No. 18 Single Wheel Hoe

Equipment:

One pair six-inch hoes, oil tempered

Price \$5.75 Net Cash Price \$5.45

**"PLANET JR." No. 11 Double Wheel Hoe, Cultivator,
Price \$13.75 Net Cash Price \$13.05 Rake and Plow.**

**"PLANET JR." No. 12 Double Wheel Hoe, Cultivator
Price \$10.75 Net Cash Price \$10.20 and Plow.**

"PLANET JR." No. 13 Double Wheel Hoe.

Price \$8.00 Net Cash Price \$7.60

Send for
Special Catalogue
"Planet Jr." Tools

No. 119 Garden Plow and Cultivator

24 in. Wheel

Price \$4.75

Net Cash Price \$4.50

No. 35 Seeder Attachment
for Planet Jr. Single and
Double Wheel Hoes

Price \$6.50

Net Cash Price \$6.20

Grass Edger

Net Cash Price - - \$1.60

"Planet Jr."
No. 72

Two Row Pivot Wheel
Riding Cultivator, Plow,
Furrower and Ridger

EQUIPMENT

- 14 Cultivator Teeth
- 4 Reversible Plows
- 2 8 inch Shovels
- 4 Plant Guards

Price Complete
\$100.00

Net Cash Price
\$95.00

JOHN DEERE MANURE SPREADER

The low down Spreader only 36 inches from the ground to top of the box making it very easy to load. The beater is made entirely of steel and is mounted on the axle doing away with unnecessary chains and gears. An endless apron with patented apron drive prevents racing of the apron under all conditions. It is very simple to operate, has only two levers and turns in its own length.

Size "A" 30 Bushel, with 2 H. H. Price	\$182.50	Net Cash Price	\$173.00
Size "B" 40 Bushel, with 2 H. H. Price	185.00	Net Cash Price	175.00
Size "C" 50 Bushel, with 3 H. H. Price	195.00	Net Cash Price	185.25

John Deere Riding Cultivators

The value of any cultivator to you is measured by its dependability for thorough work and by the time and labor it saves you in doing that work.

John Deere KC156, 8 Shovel, Spring Trip, Price	\$74.00	Net Cash Price	\$70.30
John Deere KH176, 8 Shovel, Spring Trip, Price	74.00	Net Cash Price	70.30
John Deere KH175 Zig Zag 8 Shovel, Pin Break, Price	\$65.00	Net Cash Price	\$61.75
Tobacco Attachment for the above cultivator, Price	\$12.00	Net Cash Price	\$11.60

Iron Age No. 404 R Potato Planter

The Iron Age No. 404 R Assisted Feed Potato Planter with Fertilizer Distributor equipped for large seed. A planter that places every seed piece exactly as you want it.
Price Complete \$155.00 Net Cash Price \$147.25

Hoover No. 400 Visible Potato Planter Is an Automatic, One Man Planter

This planter was designed to meet the general demand for a strictly high-grade, up-to-date potato planter, one that would be just as satisfactory for planting potatoes as the "Hoover" Potato Digger has proved for digging them.

The fertilizer attachment is designed to meet the varied requirements of potato growers, as it will put the fertilizer either below or above the seed, as the operator desires.

No. 400 Hoover Complete with Fertilizer Attachment	
Price \$145.00	Net Cash Price \$137.75
No. 4 Superior Complete with Fertilizer Attachment	
Price \$140.00	Net Cash Price \$133.00

IRON AGE No. 357L POTATO SPRAYER

The Iron Age No. 357L Potato Sprayer with four row drop nozzle bar, 100 gallon tank, triplex pump, and nozzle strainers.

Complete with pole and two horse hitch . . . Price \$260.00 **Net Cash Price \$247.00**

No. 354S 55 gallon tank, four row sprayer with duplex pump . . . Price \$206.50
Net Cash Price \$196.20

HOOVER POTATO DIGGERS

This Potato Digger has become the standard of excellence everywhere. It is now used more largely in the potato growing section of Maine than any other make.

It separates the potatoes from the vines and weeds leaving them in a clean narrow row. Two horses will handle the machine under ordinary conditions. It is a great labor saver.

No. 280 G. E.—Gear Driven 22 inch rod elevator with extension elevator and 2 Horse Hitch Price \$120.00 **Net Cash Price \$114.00**

No. 330—Chain Driven 22 inch rod elevator and vine separator with 2 Horse Hitch Price \$145.00 **Net Cash Price \$137.75**

No. 330—With 4 Horse Hitch Price 148.50 **Net Cash Price 141.00**

Niagara Dusting Material

Standard Mixtures

		Price Per 100 lbs.
DORMANT DUST	Sodium Polysulphide (in metal drums)	\$10.00
	Dormant dusting for San Jose scale and peach leaf curl.	
POMODUST	Sulphur and Lead Arsenate (in bags)	\$6.80
	Standard fruit dust for apples, pears, cherries, plums, etc.	
FRUITEX DUST	Sulphur and Lead Arsenate Mixture (replaces No. 85-15)	\$8.00
	For diseases of apples, pears, etc., Codling Moth, Strawberry Weevil, etc.	
SULFODUST	Dusting Sulphur with special spreader and sticker (in bags)	\$3.90
	For apple scab, brown rot, etc. Standard fruit dust fungicide, also used on citrus for rust mite and Red Spider.	
SUPER-SULFODUST	Dusting Sulphur with special spreader and sticker. Fineness 98%, 300 mesh (in bags)	\$4.25
	An improved Sulphur Fungicide.	
KOLODUST	(in bags)	\$5.00
	A new patented dusting sulphur of infinite fineness. A dust you can see stick.	
KOLOTEX	A mixture of Kolodust and Lead Arsenate (in bags)	\$8.10
	The New Exclusive Niagara Sulphur Fungicide with Lead Arsenate.	
95-5	Sulphur and Lead Arsenate (in bags)	\$5.80
	For cherries, peaches, etc. where chewing insects are not serious.	
80-10-10	Sulphur, Lead Arsenate and Lime (in bags)	\$6.80
	For brown rot, scab and curculio on peaches and similar fruits.	
LARVADUST	Lead Arsenate and Lime (50-50) (in metal drums)	\$15.50
	For Leaf Rollers on apples, and the more resistant chewing insects.	
A-1 MIXTURE	High percentage of quickly volatile nicotine fumes. 3% actual 100% nicotine (in metal drums)	\$15.75
	For aphids, red bugs, pear psylla, etc. The best contact dust for sucking insects, both out doors and greenhouses.	
SPECIAL 68	Dehydrated Copper Sulphate, Lime and Lead Arsenate. (in metal drums)	\$9.00
	For apples, grapes and pecans. Copper fungicide and poison.	
VITIDUST	Dehydrated Copper Sulphate, Lime, Lead Arsenate (in metal drums)	\$10.00
	For apples and grapes, contains more poison than Sp. 68.	
D-6 MIXTURE	Dehydrated Copper Sulphate, 20% Lime and Filler (in metal drums)	\$7.50
	For potato dusting, copper fungicide only. Principally for blight control.	
D-25 MIXTURE	Dehydrated Copper Sulphate, 25% Lime and Filler (in metal drums)	\$8.50
	For potato dusting, used where severe blight conditions prevail. Copper fungicide only.	
D-18 MIXTURE	Dehydrated Copper Sulphate, 20% Calcium Arsenate (poison), 25% Lime and Filler (in metal drums)	\$11.00
	For potato bugs and blight, copper fungicide and poison. Standard potato mixture.	
D-20	Dehydrated Copper Sulphate, 20% Calcium Arsenate (poison), 20% Lime and Filler (in metal drums)	\$10.25
	For potato bugs and blight same as above but with less poison.	

NIAGARA DUSTERS

Niagara Potato Duster

Model C-23-P is traction operated, a sprocket chain from axle runs fan and feed gears, because horse drawn and operated, a bigger fan with 8" blade revolving 1200 times a minute is used. Hopper holds 80 lbs. Dusts 20 acres of potatoes a day.

Price \$245.00 Net Cash Price \$232.75

NIAGARA ORCHARD DUSTERS

NIAGARA ORCHARD DUSTER

5-h.p. water cooled motor, and special orchard wagon. Sold separately. Aluminum Dust machine, highest development by pioneer duster makers. Fitted with patented flexible metal hose. Weighs 1,000 lbs., complete. Crop attachment for dusting potatoes, etc., can be supplied.

Model F 24 power orchard duster, only on skids - \$148.00

5 H. P. New Way Engine - 185.00

4 H. P. Cushman Engine - 185.00

Orchard Wagon - - - - 70.00

Above outfit complete- - 403.00

Net Cash Price \$382.85

NIAGARA BLOWER GUN

Price \$20.00 net
Price with 2 row attachment . 22.00 net

Bemis Transplanter

For Setting Tobacco and Other Plants

The above is the well known Bemis Transplanter made by Madison Plow Co. of Madison, Wis. with all improvements to date.

This machine is too well known to need any endorsement from us. Nearly every tobacco farm in the Connecticut Valley is equipped with one of these implements.

Price \$105.00 Net Cash Price \$99.75 Equipped with Double Truck \$2.00 Extra

New Improved Tiger Tobacco Transplanter

With full floating shoe and a positive lock on front truck

(This cut shows old style machine. See the new model set up on our show-room floor.)

The lifting lever works on an eccentric. A child can lift the weight of two men and when lever is operated it automatically throws machine out of gear.

Simply and strongly made with these new improvements this machine is rapidly coming into favor with discriminating buyers. This machine has $1\frac{1}{4}$ inch water connections. The flow of water is under perfect control and can be regulated to deposit as small a quantity as desired, or to discharge one pint to each plant.

Price \$105.00

Net Cash Price \$99.75

GERFIN TOBACCO SHEAR

The new features that are embodied in this shear are its bushing or pivot, and its slotted bearing.

When by much use the shear becomes loose, it can readily be adjusted by simply tightening the bushing or pivot bolt.

Should this fail, remove the bushing or pivot, file off about 1-16 of an inch at bottom, replace but with one quarter turn, this will at the same time take up the side wear. Tighten the bolt, this will again bring the knife in proper cutting relation with the gripping jaw, and your shear will again cut like new. Use plenty of good oil.

Price, \$3.50

Prout's Hoeing Machine

Unlike the Cultivators and Horse Hoes now in common use the whole surface or distance of 2 ft. more or less, on each side of plant is cut over with this machine, all the weeds are removed. The hoe steels being made tapering permit of cutting close up to plant without injury to the roots.

Price, plain \$31.00
Net Cash Price \$29.45

Price, with wheels \$34.50
Net Cash Price \$32.80

JOHN DEERE
MOWER
THE TRADE MARK OF QUALITY
MADE IN THE U.S.A.

John Deere One Horse Mower

3½ ft. Cut. Price \$87.00

Net Cash Price \$82.65

John Deere High Lift Mower

JOHN DEERE
MOWER
THE TRADE MARK OF QUALITY
MADE IN THE U.S.A.

An extremely simple mower with a high, easy lift. Bar raised with foot lift amply high to pass over ordinary obstructions, with hand lift bar raised extremely high. A boy can operate it. Special arrangement of simple driving gears prevents side strain and undue wear on bearings. Maximum power delivered to carefully-made and accurately-fitted knife. Location of pinion on crank shaft prevents end thrust. Bar attached to wide yoke insures instant starting. Cutter bar floats and has great flexibility. All adjustments and repairs quickly and easily made with ordinary tools.

Regular 5 ft. Cut.	Price \$89.00	Net Cash Price \$84.50
Giant truck 5 ft. Cut	" 93.00	" " " 88.35
Giant truck 6 ft. Cut	" 95.00	" " " 90.25

Modern Grinder

For mower knives and general tool grinding fast cutter and easy to operate.

Net Cash Price \$6.50

WOOD HAY RAKES

Wiard Rake, 8 ft. Price \$46.00 Net Cash Price \$43.70

Yankee Rake, 8 ft. " 48.00 " " " 45.50

JOHN DEERE STEEL SULKY RAKE

Designed and constructed to do every class of work required of a Sulky Rake in an efficient and satisfactory manner. This rake is simple, strong and durable. By making the principal working parts reversible, the life of a John Deere rake is practically double that of the ordinary.

8 Foot, 24 Tooth, with end Guard Teeth . . . Price \$46.00 Net Cash Price \$43.70

9 Foot, 28 " " " " " . . . " 49.00 " " " 46.55

John Deere-Dain Combination Rake

Price \$130.00

For the man who desires a combination rake, this machine will do satisfactory work. Moving one lever changes machine from rake to tedder. Angle of teeth easily changed, and either end of reel raised or lowered independently. Has ample clearance for heavy hay or large windrows. Left-hand wheel can be set in for turning windrows.

Net Cash Price \$123.50

John Deere-Dain System Rake For Air-Curing Hay

This rake aids the hay-grower in producing hay that brings the highest market price. Air cures hay without loss of color, foliage or feeding value when used according to the John Deere-Dain System of Air-Curing Hay. Rake follows mower while leaves are still active and lays the hay in loose, fluffy windrows, leaves inside, butts out. The foliage thus protected cures properly, does not get brittle and break off. Inclined frame gives greater capacity as volume of hay increases. Curved teeth lift hay gently — no dragging or threshing. All adjustments are made from the seat.

Price \$125.00

Net Cash Price \$118.75

John Deere Single-Cylinder Windrow Hay Loader

Very light draft and minimum number of working parts. Single drum mounted directly on the axle. Hinged carrier makes loading easy in windy weather. Furnished regularly with forecarriage — no lifting is necessary when coupling to wagon. Extra strong, well braced frame with hot-riveted corner plates. Gets all the hay when properly raked into windrows. Handles alfalfa and clover without knocking off valuable foliage parts. Capacity ample for all side-rake windrows. Made in 6 foot width with forecarriage.

Price \$130.00

Net Cash Price \$123.50

JOHN DEERE CORN BINDER

The Improved Binder with power carrier and quick turn tongue truck

The John Deere Corn Binder is built to the standard of quality that has characterized John Deere Implements for more than Eighty Years.

Pole Attached 3 Horse Hitch Less Power Bundle Carrier,	Price \$230.00	Net Cash Price	\$218.50
" " " with " " " " " "	" 245.00	" " "	" 232.75
With Fore Truck " " " " " "	" 265.00	" " "	" 251.75
" " " less " " " "	" 250.00	" " "	" 237.50

The Myers Clover-Leaf Unloader

PRICES

Clover Leaf Hay Unloader No. 114	\$10.25
Double Steel Track - - -	25c per ft.
Hanging Hooks - - -	18c each
Rafter Brackets - - -	06c "
3/4" Floor Hooks - - -	18c "
Wood, Knot passing, pulley Fig. 1120	70c "
Double Harpoon fork Fig. 1314 -	3.00 "
Four tine Grapple fork Fig. 1351	10.50 "
Six " " " " 1438	12.00 "

5% discount for cash on complete outfit

The advantage of a hay carrier as a means of storing away Hay or Grain are so well known that it is not necessary to go into details. They save the time and expense of from one to three men at harvest time—a large item.

JOHN DEERE FARM TRUCKS

Material selected, good quality hard wood. All parts securely braced, bolted construction can be furnished with either shafts or pole, wood or steel wheels.

Prices on Application

Triumph and Reliance Farm Wagons

Can be furnished with or without body.

Prices on Application

CANAL BARROWS

Full Bolted with Wood Tray,
Wood or Steel Wheel

Price \$5.25 Net

Full Bolted with Steel Tray,
Wood or Steel Wheel

Price \$5.50 Net

Mortar Barrow

Price \$8.00 Net

GARDEN BARROWS

Buchs No. 2 Large \$8.50
Buchs No. 3 Medium 8.00
Easter Garden,
No. 3 Small 6.75

Net

STEEL SCRAPERS

Fig. 603.

No. 3 Special, 3 cu. ft. Price \$11.50 Net
No. 2 Special, 5 cu. ft. " 12.00 "
No. 1 Special, 7 cu. ft. " 12.50 "

GRINDSTONES

No. 1 Samson Wood
Frame . Price \$11.00 Net
Bicycle Frame " 11.50 "

Champion Vegetable Cutter

This is one of the best machines in the market for cutting all kinds of vegetables. It is made with a wrought shaft with sections of knives fastened to it, and arranged so that a rotation of knives is continually passing a bed knife with cross knives passing between the section of knives; cutting always near the center shaft, making it cut easy and fine enough for cattle or sheep; also making a very regular cut.

This machine will cut sixty bushels an hour.

	Weight	Price	Net Cash Price
No. 1	115 lbs.	\$10.50	\$10.00
No. 1½	132 "	12.00	11.40

Corn Shellers

Frame—Of hard wood, well mortised together, and neatly painted.

Large Hopper—Adjustable to shell all sizes of ears, and large Dent corn as well.

Heavy Fly-Wheel—With shaft of cold rolled steel gives not only strength of construction, but smooth running with little power.

Separator—On the front of the machine, which separates the ears from the shelled corn.

Chaff Sieve—Assists in screening the corn which passes out through the small spout at the bottom. Weight 125 lbs.

Chicopee Corn Sheller

Price \$13.75 Net Cash Price \$13.00

Chicopee Double Hole Corn Sheller

(Hand or Power)

Price \$34.38 Net Cash Price \$32.65

Lion Corn Sheller

Price \$15.00 Net Cash Price \$14.25

Red Chief Corn Sheller

Price \$3.50 Net.

Nonesuch Feed Cutters

This is a simple and durable machine. The device for adjusting the lever, being removed from the pivot, enables us to have a stationary pivot firmly attached to the machine, and consequently not liable to get loose, as in all machines where the pivot is adjustable.

		Weight	Price	Net Cash Price
No. 1	Straight Knife	58 lbs.	\$5.25	\$5.00
" 2	Hawk Bill Knife	58 "	5.50	5.25
" 2½	" " "	65 "	5.88	5.60
" 3	" " "	85 "	7.63	7.25

We also sell

Power Feed and Ensilage Cutters

FARMERS' CALDRON FURNACE

A necessity on every farm, for heating water and cooking Stock feed

These Furnaces may be had fitted to burn either Coal or Wood. The Kettle may be bought separately and set in brick work if desired.

Complete — Prices Net Cash — Kettle Only		
\$24.00	15 Gallon	\$10.00
37.00	30 "	13.00
45.00	45 "	17.00
none in stock	60 "	20.00

LETZ MILLS

For grinding cob corn, shelled corn, oats and all other small grains.

No. 6	Price \$34.00	Net Cash Price \$32.30
No. 9	" 48.50	" " " 46.10
No. 11	" 55.00	" " " 52.25

ROYAL COLONY BROODER

No. 5 — 42 in. Canopy capacity up to 500 chicks

Net Cash Price \$21.50

No. 6 — 52 in. Canopy capacity up to 1000 chicks

Net Cash Price \$26.50

The brooder should be cleaned and disinfected before using. It should be operated several days and nights before chicks hatch so any defects can be corrected. Cover the floor with half an inch of fine sharp sand and spread a litter of chopped oat straw over the sand. Darken the incubator and harden the chicks off for 24 to 36 hours by gradually reducing the temperature to 100 degrees and increasing the ventilation before removing to the brooder. Move the chicks in a covered box or basket to prevent chilling.

Hang the thermometer under the edge of the brooder near the floor. The temperature should be 100 degrees F. As the chicks grow older gradually reduce the temperature. When the temperature is right at night the chicks will spread out and lie down near the edge of the hover. If they pile up or chirp constantly the temperature is too low. If they go too far from the brooder it is too high.

If you hatch 150 or more chicks at a time, you will find a coal-burning brooder the most satisfactory type. It supplies plenty of heat at a low cost, prevents crowding and piling up, requires a small amount of labor and can be used in any type of building.

Feed baby chicks a balanced ration namely; Purina Chick Startena and Purina Baby Chick Chow which comes only in checkerboard bags.

Get the
hundred page
Purina Poultry
Book, with our
compliments

Feed
from the
Checkerboard
Bag

Do You Feed in the Dark?

You wouldn't deliberately mix a chicken feed at midnight—in total darkness—would you? Yet you do work in the dark when you attempt to mix your own feed. You are forced to buy untested ingredients of uncertain quality. These ingredients vary greatly in the amount and quality of proteins, carbohydrates and fats they contain. Furthermore, you can't obtain *all* the ingredients needed to make a truly balanced ration.

Feed Purina Poultry Chows

Send for our free poultry book.

How to Feed Cow Chow

Feeding Cow Chow is as easy as falling off a log. In each bag there's a sheet of paper. Unfold it, and you'll see pictures of different kinds of hay, silage fodder and so on.

Find the kind of roughage you use, and right across from it, you'll see the way to feed Cow Chow for best results.

Send for our free cow book.

Who Should Use O-Molene?

Only those who will profit from its use should feed O-Molene!

The high quality raw materials and careful mixing keeps horses and mules in excellent condition—free from colic or other digestive troubles. O-Molene lengthens their working life, too.

Because it's so digestible, less O-Molene by weight may be fed than of the raw grains—that means a real saving. Send for our free horse book.

About \$4.00 worth of Purina Calf Chow will feed a calf for the first two months. What are your calves worth at birth? What would they be worth two months later? Figure your profits. If you raise blooded calves you can cut the cost. Purina Calf Chow will take the place of nurse cows for blooded beef calves. You can feed it dry at five weeks. Let us prove to you that "Calf Chow" pays big dividends. See us or 'phone.

Feed
from the
Checkerboard
Bag

These Hoes are specially adapted to Connecticut Valley Trade.

Size								Price
8	x 2½	.	.	.	.	.	.	\$1.15
8½	x 2½	.	.	.	.	.	.	1.20
9	x 2½ and 2¾	.	.	.	.	.	.	1.20
9½	x 2½	.	.	.	.	.	.	1.30
10	x 2½	.	.	.	.	.	.	1.35
11	x 2½	.	.	.	.	.	.	1.45

In Dozen Lots 10% Discount

[illegible]

7—W	.	.	.	.	.	.	.	\$1.20 each
7½—W	.	.	.	.	.	.	.	1.30 "

I2	Teeth, 5½ ft. Handle	.	.	.	.	.	Price, \$1.10 each
I4	" "	"	.	.	.	.	" 1.20 "
I6	" "	"	.	.	.	.	" 1.30 "
I8	" "	"	.	.	.	.	" 1.40 "

24 Teeth—Bolted Pattern	•	.	.	.	.	Price \$1.00 each
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4	Time, Long	Handle, Strap	Ferrule	.	.	.	.	.	.	\$2.00
4	" Mal. D	" "	" "	.	.	.	.	.	.	2.00
5	" Long	" "	" "	.	.	.	.	.	.	2.50
5	" Mal D	" "	" "	.	.	.	.	.	.	2.50
5	" Wood D	" "	" "	.	.	.	.	.	.	2.80

3 Tooth Short Handle (8 in.)		\$0.50
3 " " Long " (4 ft.)		.90
5 " " " " (4½ ft.)		1.25
Easy Pull Long Handle (4 ft.)		.65
" " " " (4½ ft.)		1.25
Drop Shank Garden Trowel		.90
Triangular Steel Blade Onion Weeder		.65

[illegible]

Oval Three-Tine Ferrule Hay Forks

4	ft.	Bent handle, 13 in.	Tine, plain ferrule					Price, \$1.35 each
4½	ft.	"	" 13 "	"	"	"	"	" 1.40 "
5	ft.	"	" 14 "	"	"	"	"	" 1.55 "
5½	ft.	"	" 14 "	"	"	"	"	" 1.65 "
6	ft.	"	" 14 "	"	strap ferrule			" 1.90 "

"Electric" Hay Knives

Convex, curved blades with shanks forged from a single piece of high grade steel. 36 inches long.

Price, \$1.75 net

Manure Forks

			Price	Price	Price
			4 Tine	5 Tine	6 Tine
Long	Handle	Common Ferrule	\$1.70	\$1.95	\$2.25
Long	"	Strap	1.90	2.15	2.40
Mal. D	"	Common	1.70	1.95	2.25
Mal. D	"	Strap	1.90	2.15	2.40
Wood D	"	Common	2.20	2.45	2.85
Wood D	"	Strap	2.40	2.65	2.90
S. A	B. Large	4 Tine Fork for handling light manure			2.90

Steel Manure Hooks

4	Tine	Bent	Head	6 ft.	Handle			\$1.40
5	"	"	"	6 ft.	"			1.55

Steel Potato Hooks

4	Tine	Bent	Head	4½ ft.	Handle			\$1.10
5	"	"	"	"	"			1.35
6	"	"	"	"	"			1.45

Goslee Improved Field Marker

(Spread 2 to 4 feet)

This machine is designed to mark out rows any width for any crops grown in rows. Teeth are adjustable to any size and depth drill.

Goslee, Price	\$19.00	Net Cash Price	\$18.00
LeRoy, " "	22.00	" " "	21.00

The New Roller-Bearing, Light Draft, D-Type Brillion King Soil Pulverizer

Prices on sizes other
than below quoted
on application

To make your soil yield the greatest possible return for your money, time and labor, you must first properly prepare the seed bed. A certain amount of moisture is absolutely necessary for dissolving the plant food particulars in the soil. Therefore, the soil must be so pulverized and packed as to retain the proper moisture for feeding the plant. Mere plowing and harrowing is not enough as there is too much air space left between the furrow slices. Heavy sod land should be well disced before the pulverizer is used. Most farmers who have tractors do both operations at once by hitching the pulverizer behind the harrow. Made in single and double gang and in many sizes.

D-76 Double Gang 7 feet long, 37 sections, front gang 15" in diameter,
rear gang 12" in diameter, Price \$90.00 . . . Net Cash Price \$85.50

F-84 Single Gang 8 feet long, 21 sections, 15" in diameter,
Price \$66.00 . . . Net Cash Price \$62.70

Here Is The Point!

¶ Paint cost depends not upon what you pay per gallon for the paint, but upon how much service you get out of every gallon of paint you buy.

¶ Because there is quality in B. P. S. Paint, it gives service and satisfaction.

B. P. S. Paint covers from 350 to 400 sq. feet, two coats; a cheap paint will cover not to exceed 250 sq. feet.

¶ B. P. S. wears for years and leaves a surface fit to repaint, and the colors are permanent as it is possible to make them.

¶ Think it over seriously; figure out the cost per year and the cost per gallon. B. P. S. will be the best investment.

We carry a full line of BURTON'S BOSTON BRUSHES, Linseed Oil, Turpentine and Jewett White Lead

Safekote
more than waterproof

“300 to 1”

Slate Surfaced Shingles

Slate Surfaced Strip Shingles

Slate Surfaced Roll Roofing

Smooth Surface Roofing

Individual Shingles

Waterproof Building Paper

OUR line of SAFEKOTE Roofings, in point of service, convenience and economy, is the finest roofing built.

The resistance, toughness and durability of SAFEKOTE cannot come from the use of best materials alone. True, the extra-thick SAFEKOTE base is selected all-rag felt impregnated with choicest asphalt. But other factors also help to make SAFEKOTE what it is. *Pride of Workmanship! Care! Skill! The “Knowing How”!*

If you are building, or about to re-roof, let us show you how SAFEKOTE will meet your every need. Economically, Beautifully and Durably.

Order Your Repairs Before the Rush Comes

Don't get caught this spring with implements that cannot be operated because of a few needed repairs.

A delay of a day or two in your busy season may result in big dollars-and-cents loss.

Here's a way to prevent delays later on. Right now, when you have plenty of time, take a complete inventory of your implement equipment. Go over every machine you plan to use this year—see if new boxes are not needed—if the plow shares are in usable shape—if all parts are whole. Jot down the needed parts on each machine, give us the list so that we can order such parts that we may not have in stock. We will supply the new parts to you quickly, so you can get your machines in ship-shape for your field work.

Don't forget, too, that genuine repair parts last longer, fit better and materially prolong the usefulness of your machinery,

While you are going over your equipment, you may find machinery that is beyond profitable repair. Remember, we have a full line of John Deere labor-saving, crop-producing implements. John Deere machinery, built to a high standard of quality, is the most economical in the long run.

Don't forget to order your repairs early. Last-minute ordering is usually costly.

USEFUL CHEMICAL MEMORANDA

(Partly from the first annual report of the Connecticut Agricultural Experiment Station, 1876.)

Animal and vegetable substances, such as flesh, bone, wood, grain, manure, and the like, contain three classes of materials: Water, Organic Matters and Mineral Matter or Ash. If we heat a piece of wood, a whisp of hay, a bone, or a portion of manure or soil, in an oven, the water will be dried out. If we put the dried material in the fire, the *Organic Matter*, which consists mostly of the chemical elements, carbon, oxygen, hydrogen, and nitrogen will be burned away, and there will remain the *Mineral Matter* or *Ash*. The ash of these different materials generally contains more or less potash, soda, lime, magnesia, iron, alumina, silica, phosphoric acid, sulphuric acid, chlorine, or other ingredients. The proportions of these vary widely in different substances, from the large quantities to the merest traces.

Moisture.—All fertilizers contain more or less water, which, of course has no commercial value, and serves to make them heavier and relatively poorer in valuable ingredients. In the analysis that which is removed by heating to 212° Fahrenheit (or in some cases to a somewhat higher temperature), is designated as moisture. By subjecting the dried material to a higher temperature, the organic and volatile matters are driven off, and the ash remains. By treating this ash with strong acids, all that is of any value is dissolved.

Sand and Insoluble Matters.—The residue, which resists the action of both fire and strong acids, consists of silica and other mineral matters. These possess no fertilizing value, and are classified as sand, etc.

Nitrogen, Ammonia.—In our ordinary fertilizers, much or all of the nitrogen exists in unavailable forms. By more or less rapid alterations, by decay or otherwise which take place in the soil, these are changed to other compounds, which the plant can readily use as food. Of these latter nitric acid, which contains nitrogen combined with oxygen, is one; ammonia which consists of nitrogen and hydrogen and is represented by the chemical formula NH_3 is another. 14 parts by weight of nitrogen unite with 3 parts of hydrogen to form 17 parts of ammonia. Accordingly 14 parts of nitrogen are said to be equivalent to 17 of ammonia, or what is the same thing 100 parts of nitrogen are reckoned as equivalent to 121 parts of ammonia. In pure sulphate of ammonia, all the nitrogen is in the form of ammonia. In Peruvian guano, some of the nitrogen exists as ammonia also. In our ordinary fertilizers there is little or no ammonia. The very common practice of reckoning nitrogen as ammonia in fertilizers which do not contain it in this form is incorrect, misleading and therefore wrong, and ought to be abolished. Ammonia combined with sulphuric acid, forms sulphate of ammonia; nitric acid combined with soda, forms nitrate of soda.

Phosphoric Acid: SOLUBLE, REVERTED AND INSOLUBLE.—By phosphoric acid is understood the compound of phosphorous and oxygen, which is represented by the chemical formula, P_2O_5 . This combined with lime, forms phosphate of lime. The phosphate of lime which occurs in bone, and in South Carolina and other fossil and mineral phosphates, contains three parts of lime to one of phosphoric acid. This is often called bone phosphate, and is insoluble in water. When the bone phosphate is treated with sulphuric acid, the latter takes part of the lime to itself, forming sulphate of lime, and leaves the phosphoric acid in the form of a *Superphosphate*. This last is soluble in water, and when used as a fertilizer can be taken up by the plant at once, while the bone phosphate is slowly available as plant food. Phosphoric acid which has been rendered soluble, often enters into other forms of combination with lime, alumina, etc., which, though insoluble in water, are soluble in citrate of ammonia. The terms, reverted, reduced and precipitated, are applied to it when in this form.

The reverted phosphoric acid ranks in solubility, and consequently in value, between the soluble and insoluble. The soluble and reverted are sometimes classed together as *Available* phosphoric acid.

In some analyses the percentage of phosphoric acid is not stated separately, that of "bone phosphate of lime" being given in its stead. Sometimes the expression "soluble bone phosphate of lime" is met with, which is certainly a misnomer. 142 parts by weight of phosphoric acid P_2O_5 unite with about 168 parts of lime CaO to form 310 parts of bone phosphate $Ca_3(PO_4)_2$; 100 parts or pounds of phosphoric acid are said, therefore, to be equivalent to 218 parts of bone phosphate. Special stress is laid on this point, because those not familiar with chemistry are apt to be deceived in comparing analyses, in some of which the term phosphoric acid, and in others the term bone phosphate, is used. It would be more accurate and clear, and in every way better to discard the term bone phosphate of lime in analyses of fertilizers, and speak only of phosphoric acid.

Potash, or potassa, is the compound of the metal potassium with oxygen, which is represented by the chemical formula K_2O or KO . This combined with sulphuric acid forms sulphate of potash. Potassium and chlorine together form chloride of potassium, or "muriate of potash," as it is called by dealers.

100 pounds of pure sulphate of potash contains about 54 pounds of "actual potash." 100 pounds of sulphate of potash are therefore said to be equivalent to 54 pounds of actual potash, and vice versa, 54 pounds of potash, in the sulphates are reckoned as equivalent to 100 pounds of sulphate of potash. In the "muriates" 100 pounds of chloride of potassium are reckoned equivalent to about 63 pounds of potash, and vice versa.

Carbonate of Potash, K_2CO_3 — This fertilizer chemical is the ingredient which gives to wood ashes and cotton hull ashes their value as tobacco fertilizers, and it is practically free from magnesia. It was formerly prepared by extraction from wood ashes, and formed the "pearl ash" of commerce. It has been used with good effect as a tobacco fertilizer in the Poquonock experiments.

The following figures will be found useful in calculations of the composition of fertilizers.

NITROGEN COMPOUNDS

14.	parts of Nitrogen	are contained in	17.	parts of Ammonia.
100.	"	"	121.43	"
82.35	"	"	100.	"
17.	Ammonia	"	66.	Sulphate of Ammonia.
100.	"	"	388.2	"
25.8	"	"	100.	"
14.	Nitrogen	"	66.	"
100.	"	"	471.4	"
21.2	"	"	100.	"
14.	"	"	54.	Nitric Acid.
100.	"	"	385.7	"
25.9	"	"	100.	"
14.	"	"	85.	Nitrate Soda.
100.	"	"	607.1	"
16.47	"	"	100.	"
54.	Nitric Acid	"	85.	"
100.	"	"	157.4	"
63.5	"	"	100.	"
85.	Nitrate of Soda correspond to	17.	"	Ammonia.
100.	"	20.	"	"
85.	"	100.	"	"

PHOSPHORIC ACID

100.	parts of Phosphoric Acid correspond to	218.3	parts of Bone Phosphate.
45.8	"	100.	"

POTASH (Potassa)

100.	parts of Sulphate of Potash contains	54.08	parts of Potassa.
184.9	"	100.	"
100.	Chloride of Potassium correspond to	63.17	parts of Potassa.
158.3	"	100.	"

SEED AND PLANT TABLES.

	Quantity per Acre	Weight Per Bu.
Barley	95 to 120 lbs.	48 lbs.
Blue Grass (Canada)	25 to 40 lbs.	14 lbs.
" (Kentucky)	25 to 40 lbs.	14 lbs.
Buckwheat	50 to 60 lbs.	48 lbs.
Clover-Alfalfa (Broadcast)	20 to 30 lbs.	60 lbs.
(Drills)	15 to 20 lbs.	60 lbs.
Crimson	10 to 20 lbs.	60 lbs.
Red	10 to 15 lbs.	60 lbs.
White.	5 to 10 lbs.	60 lbs.
Corn (Hills)	15 to 20 lbs.	56 lbs.
(drills for fodder)	60 to 75 lbs.	56 lbs.
(broadcast)	120 to 150 lbs.	56 lbs.
Cow Peas in Drills.	60 to 90 lbs.	60 lbs.
Millet (Common)	25 to 40 lbs.	48 lbs.
(Hungarian)	25 to 40 lbs.	48 lbs.
(Japanese)	12 to 20 lbs.	32 lbs.
Oats	60 to 90 lbs.	32 lbs.
Orchard Grass	25 to 40 lbs.	14 lbs.
Rape (broadcast)	5 to 6 lbs.	60 lbs.
(drills)	3 to 4 lbs.	60 lbs.
Red Top (unhulled)	25 to 40 lbs.	14 lbs.
(recleaned)	10 to 15 lbs.	35 lbs.
Rhode Island Bent Grass	25 to 40 lbs.	14 lbs.
Rye Grass (Italian)	40 to 50 lbs.	18 lbs.
Soja Beans (broadcast)	50 to 75 lbs.	60 lbs.
(in rows)	20 to 30 lbs.	60 lbs.
Sudan Grass	15 to 20 lbs.	
Timothy	15 to 30 lbs.	45 lbs.
Vetch (Spring)	50 to 70 lbs.	60 lbs.
Vetch (Winter)	30 to 60 lbs.	60 lbs.
Wheat	90 to 120 lbs.	60 lbs.
Potatoes,	12 Bu.	60 lbs.
Clover, Timothy, } together, for one acre,		{ 8 pounds
Red Top,		{ ¼ bushel
}		{ 1 bushel
Peas in drills are sown 1¼ to 1½ bushels to the acre.		
Carrots,	usually sown to the acre, 2½ to 3 lbs.	
Beets,	" " " " " 4 to 6 lbs.	
Farnips,	" " " " " 3 to 6 lbs.	
Onions,	" " " " " 4 to 6 lbs.	
Ruta Bagas,	" " " " " 1 lb.	
Turnips,	" " " " " 1 to 1½ lbs.	
Beans,	" " " " " 1½ to 2 bu.	

Quantity of Corn Required to Plant an Acre, Five Grains in a Hill.

3 ft. x 2	18 qts.	3 ft. x 3	14 qts.
3½ ft. x 3	10 qts.	3¾ ft. x 3	8 qts.
3 ft. x 4	7 qts.	4 ft. x 4	6 qts.

Number of Plants per Acre at Given Distances.

1 ft. x 1 ft.	43,560	9 ft. x 9 ft.	537
1½ ft. x 1½ ft.	19,360	12 ft. x 12 ft.	362
2 ft. x 2 ft.	10,890	15 ft. x 15 ft.	163
2½ ft. x 2½ ft.	6,969	18 ft. x 18 ft.	134
3 ft. x 3 ft.	4,840	20 ft. x 20 ft.	100
4 ft. x 4 ft.	2,722	25 ft. x 25 ft.	73
5 ft. x 5 ft.	1,742	30 ft. x 30 ft.	47
6 ft. x 6 ft.	1,210	40 ft. x 40 ft.	20

Quantity of Seed Required for a Given Number of Plants, or Number of Hills, or Length of Drill.

Asparagus,	1 oz. to 65 ft. of drill	Musk Melon,	1 oz. to 60 hills
Beets,	1 oz. to 50 ft. of drill	Okra,	1 oz. to 40 ft. of drill
Beans, Dwarf,	1 qt. to 100 ft. of drill	Onion,	1 oz. to 100 ft. of drill
Beans, Pole,	1 pt. to 150 hills	Onion Sets, small,	1 qt. to 4 ft. of drill
Carrot,	1 oz. to 150 ft. of drill	Parsley,	1 oz. to 150 ft. of drill
Cabbage,	1 oz. to 3,000 plants	Parsnip,	1 oz. to 200 ft. of drill
Cauliflower,	1 oz. to 3,000 plants	Peas,	1 qt. to 100 ft. of drill
Celery,	1 oz. to 4,000 plants	Pumpkin,	1 oz. to 40 hills
Cucumbers,	1 oz. to 50 hills	Pepper,	1 oz. to 2,000 plants
Corn,	1 qt. to 400 hills	Radish,	1 oz. to 100 ft. of drill
Dandelion,	1 oz. to 200 ft. of drill	Salsify,	1 oz. to 70 ft. of drill
Endive,	1 oz. to 150 ft. of drill	Spinach,	1 oz. to 100 ft. of drill
Egg Plant,	1 oz. to 2,000 plants	Squash, early,	1 oz. to 50 hills
Lettuce,	1 oz. to 4,000 plants	Squash, marrow,	1 oz. to 16 hills
Leek,	1 oz. to 100 ft. of drill	Tomato,	1 oz. to 3,000 plants
Watermelon,	1 oz. to 80 hills	Turnip,	1 oz. to 150 ft. of drill

One Gallon, by the U. S. Standard Unit of Liquid Measure contains 231 cubic inches.

The U. S. Bushel contains 2,150.42 cubic inches.

An Acre contains 43,560 square feet.

FOREIGN NAMES OF VEGETABLES AND HERBS

English	French	Italian	Polish	Spanish	Danish-Norwegian	German
Anise.....	Anis.....	Aniso, Anacio.....	Anyz.....	Anis, Matalahuga.....	Anis.....	Anis, Grüner Anis.....
Artichoke.....	Artichaut.....	Articocea.....	Karczochy.....	Alcachofa.....	Artiskok.....	Artischoke.....
Asparagus.....	Asperge.....	Sparagio.....	Szparagi.....	Asparago.....	Aspargos.....	Spargel.....
Balm.....	Melisse citronelle.....	Melissa.....	Balsam.....	Toronjil, Citronella.....	Balsamurt.....	Citronen-Melisse.....
Basil.....	Basilic grand.....	Basilico.....	Bazylia.....	Albaca.....	Basilikum.....	Basilikum.....
Beans.....	Haricots.....	Fagioli.....	Fasola.....	Habichuela.....	Boenner.....	Bohnen.....
Beet.....	Betterave.....	Barbabetola.....	Buraki.....	Remolacha.....	Roodbede.....	Rübe.....
Broccoli.....	Bourrache.....	Boragine.....	Boraz.....	Boraja.....	Borago.....	Boretsch.....
Brocoli.....	Chou Brocoli.....	Brocoli.....	Brokuly.....	Brocoli.....	Broccoli-Kaal.....	Spargelkohl.....
Brussels Sprouts.....	Chou de Bruxelles.....	Cavolo di Bruxelles.....	Latorvil.....	Bretones de Bruselas.....	Rosenkaal.....	Rosenkohl.....
Cabbage.....	Chou pommé.....	Cavolo cappuccio.....	Kapusta.....	Col repello.....	Hovedkaal.....	Kopfkohl, Kraut.....
Cabbage, Savoy.....	Chou de Milan.....	Cavolo di Milano.....	Sabaudzka.....	Col de Milan.....	Savoikaal.....	Wirsing.....
Caraway.....	Cumin des prés.....	Carvi.....	Kminek.....	Comino.....	Karve.....	Feld-Kümmel.....
Carrot.....	Carotte.....	Carota.....	Marchew.....	Zanahoria.....	Gulerod.....	Carotten, Möhren.....
Cauliflower.....	Chou-fleur.....	Cavolfloire.....	Kalafiory.....	Coliflor.....	Blomkaal.....	Blumenkohl.....
Celery.....	Céleri.....	Sedano.....	Selery.....	Apio.....	Selleri.....	Sellerie.....
Celeriac.....	Céleri-rave.....	Sedano-rapa.....	Selery (Korzen).....	Apio-nabo.....	Knopselleri.....	Knoll-Sellerie.....
Chervil.....	Cerfeuil.....	Cerfoglio.....	Czechrzyca.....	Perifollo.....	Kjoervel.....	Kerbel.....
Chicory.....	Chicorée sauvage.....	Cicoria selvatica.....	Cykorya.....	Achicoria.....	Cichorie.....	Cichorienwurzel.....
Coriander.....	Coriandre.....	Coriandorlo.....	Koledra.....	Culantro.....	Koriander.....	Coriander.....
Corn Salad.....	Mâche.....	Valeriana.....	Ziarno Salaty.....	Canonigos.....	Vaarsalat.....	Feldsalat.....
Corn.....		Mais.....	Kukurydza.....	Maiz.....	Mais.....	Mais.....
Cress.....	Cresson alenois.....	Agretto.....	Rzerzucha.....	Mastuerzo.....	Karse.....	Garten-Kresse.....
Cress, Water.....	Cresson de fontaine.....	Nasturzio aquatico.....	Rzerzucha wodna.....	Berro.....	Broendkarse.....	Brunnenkresse.....
Cucumber.....	Concombre.....	Cetriolo.....	Ogorek.....	Cohombro.....	Agurk.....	Gurken.....
Dandelion.....	Pissenlit.....	Dente di leone.....	Papawa.....	Diente de leon.....	Loevetand.....	Löwenzahn.....
Dill.....	Aneth.....	Aneto.....	Koper.....	Eneldo.....	Dil.....	Dill.....
Egg Plant.....	Aubergine.....	Petronciano.....	Gruszka milosna.....	Berengena.....	Agplantie.....	Eierpflanze.....
Endive, Curled.....	Chicorée Endive.....	Endivia.....	Endywia.....	Endivia.....	Endivie.....	Endivian.....
Endive.....	Chicorée-Scarole.....	Endivia Scarola.....		Escarolo.....		Escarol.....
Broad Leaf.....	Ronde.....					
Fennel.....	Fenouil.....	Finocchio.....	Koper.....	Hinojo.....	Fennikel.....	Fenchel.....
Garlic.....	Ail.....	Aglio.....	Czosnek.....	Ajo.....	Hvidloeg.....	Knoblauch.....
Forehound.....	Marrube blanc.....	Marrubio.....	Marubium.....	Marrubio.....	Andorn.....	Andorn.....

FOREIGN NAMES OF VEGETABLES AND HERBS—Continued

English	French	Italian	Polish	Spanish	Danish-Norwegian	German
Horse Radish.....	Rai fort sauvage.....	Rafano.....	Chrzan.....	Taramago.....	Peberrod.....	Meer Rettig.....
Hyssop.....	Hyssope.....	Issopo.....	Hyzop.....	Hisopo.....	Isop.....	Isop.....
Kale.....	Chou vert.....	Cavolo verde.....	Solanka.....	Breton, Berza.....	Groenkaal.....	Blätterkohl.....
Kohl Rabi.....	Chou-rave.....	Cavolo rapa.....	Kalarepa.....	Col rabano.....	Kaalrabi.....	Knollkohl.....
Lavender.....	Lavende.....	Lavanda.....	Lawenda.....	Espiego.....	Lawenda.....	Lavendel.....
Leek.....	Poireau.....	Porro.....	Pory.....	Puerro.....	Purre.....	Porree, Lauch.....
Lettuce.....	Laitue.....	Lattuga.....	Salata.....	Lechuga.....	Salat.....	Lattich, Kopfsalat.....
Marjoram.....	Marjolaine.....	Maggiorana.....	Majeranek.....	Mejorana.....	Merian.....	Majoran.....
Melon.....	Melon.....	Popone.....	Melon.....	Melon.....	Melon.....	Melone.....
Melon, Water.....	Melon d'eau.....	Melone d'acqua.....	Melon, wodny.....	Sandia.....	Vandmelon.....	Wasser-Melone.....
Mushroom.....	Champignon.....	Fungo pratajolo.....	Grzyb.....	Seta.....	Champignon.....	Schwamm.....
Nasturtium.....	Capucine.....	Nasturtio.....	Nsturecya.....	Capuchina.....	Blomkarse.....	Kapuciner Kresse.....
Okra.....	Gombaud.....	Ocra.....	Gombu.....	Gombo.....	Hibiskus.....	Ocher.....
Onion.....	Ognon.....	Cipollo.....	Cebula.....	Cebolla.....	Roedloeg.....	Zwiebel.....
Parsley.....	Persil.....	Prezzemolo.....	Pietruszka.....	Perejil.....	Persille.....	Petersilie.....
Parsnip.....	Panais.....	Pastinaca.....	Pasternak.....	Chirivia.....	Pastinak.....	Pastinake.....
Peas.....	Pois.....	Pisello.....	Groch.....	Guisante.....	Erter.....	Erbsen.....
Pepper.....	Piment.....	Peperone.....	Pieprz.....	Pimiento.....	Spanisk Peber.....	Pfeffer.....
Pumpkin.....	Potiron.....	Zucca.....	Bania.....	Calabaza totanera.....	Graeskar.....	Melonen-Kürbiss.....
Radish.....	Radis.....	Ravanello.....	Rzodkiew.....	Rabanito.....	Reddik.....	Radies.....
Rhubarb.....	Rhubarbe.....	Rabarbaro.....	Rubarbarum.....	Ruibarbo.....	Rhabarber.....	Rhabarber.....
Rosemary.....	Romarin.....	Rosmarino.....	Rozmaryn.....	Romero.....	Rosmarin.....	Rosmarin.....
Rue.....	Rue.....	Ruta.....	Ruta.....	Ruda.....	Rude.....	Raute.....
Ruta Baga.....	Chou-navet.....	Cavolo navone.....	Safran.....	Col nabo, Nabicol.....	Roe.....	Kohlrübe, Wrucken.....
Saffron.....	Safran.....	Zafferano.....	Szafran.....	Azafran.....	Safran.....	Safran.....
Sage.....	Sauge.....	Salvia.....	Szawlwia.....	Salvia.....	Salvie.....	Salbei.....
Salsify.....	Salsifis.....	Sassefrica.....	Jarzy, Ostryga.....	Salsifi blanco.....	Havrerod.....	Haferwurzel.....
Sorrel.....	Oseille.....	Actosa.....	Szczaw.....	Acedera.....	Syre.....	Sauerampfer.....
Summer Savory.....	Sarniette annuelle.....	Santoreggia.....	Caber ogrodowy.....	Ajedrea comun.....	Sar.....	Bohnenkraut.....
Spinach.....	Epinaud.....	Spinace.....	Szpinak.....	Espinaca.....	Spinat.....	Spinat.....
Squash.....	Courge.....	Zucca.....	Miekurz.....	Calabaza.....	Squash-graeskar.....	Kürbiss.....
Swiss Chard.....	Poirée.....	Bieta.....	Bleda.....	Bleda.....	Blad bede.....	Beisskohl.....
Thyme.....	Thym.....	Timo.....	Macierzanka.....	Tomillo.....	Timian.....	Thymian.....
Tomato.....	Pomme d'Amour.....	Pomo d'oro.....	Pomidor.....	Tomate.....	Tomat.....	Liebesapfel.....
Turnip.....	Navet.....	Navone.....	Rzepa, brukiew.....	Nabo.....	Turnips.....	Weisse Rübe.....
Wormwood.....	Absinthe.....	Assenzio.....	Piotun.....	Ajenojo.....	Malurt.....	Wermuth.....

Our Mixing and Storage Plant, Tolland Street,
East Hartford, Connecticut. Erected in
1920. Equipped with modern
machinery and labor-
saving devices

A Rear View of Our East Hartford Plant
Showing Loading Platform

Above Photo Shows Interior of Storage Ware-
house Connected with Our Mixing Plant. At
Certain Seasons of Year this Building
Contains Thousands of Tons of
Fertilizer Materials

Unloading Fish Scrap at Wharf. This Material
Comes From Various Points Along the
Atlantic Coast and Is Ground and
Conditioned at Our Plant

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