1903

AMERICAN FARMERS' MANUAL

...HENDERSON'S...
SPECIAL
GRASS MIXTURES
FOR ..HAY.. AND
PERMANENT PASTURE.

..HENDERSON'S..
SUPERIOR SEEDS
OF
GRASSES,
CLOVERS. CEREALS,
FORAGE PLANTS,
ROOT CROPS,
ETC., ETC., ETC.

PETER HENDERSON & CO.
35 & 37 CORTLANDT ST.
NEW YORK.

Henderson's American Farmers' Manual for 1903.

ABOUT FORWARDING AND REMITTING.—Remittances should be made either in the form of a *P. O. Money Order, Express Money Order, Bank Draft, Express Purchasing Order or Registered Letter.*

Farm Seeds we do not deliver free, but make no charge for packing boxes, barrels or cartage of goods to any railroad station, steamship line or express office in New York City. Consignee pays the transit charges. Cloth bags we charge for, but only at cost, viz.: 1 peck, 10c.; ½ bush., 12c.; 1 bush., 15c.; 2 bush., 20c.

All Grass Seed Bags, excepting for Timothy and Clover, we furnish free.

SPECIAL PACKING for FOREIGN SHIPMENTS, in tin-lined cases or double sacks, charged for at cost.

SPECIAL QUOTATIONS given to buyers of large quantities.

PETER HENDERSON & CO. give no warranty, express or implied, as to description, quality, productiveness, or any other matter of any Seeds, Bulbs or Plants they send out, and they will not be in any way responsible for the crop. If the purchaser does not accept the goods on these terms, they are at once to be returned.

PETER HENDERSON & CO. give no warranty, express or implied, as to description, quality, productiveness, or any other matter of any Seeds, Bulbs or Plants they send out, and they will not be in any way responsible for the crop. If the purchaser does not accept the goods on these terms, they are at once to be returned.

ORDER SHEET FOR FARM SEEDS.

PETER HENDERSON & CO., 35 AND 37 Cortlandt St., New York.

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IN ORDERING, Please Use this "ORDE

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	Amount brought forward,		

R SHEET."

"Blood will tell"
in seeds . . . . . as well as in animals .

IT is not enough to know that seeds grow, for weed seeds will grow! **The vital point is, What will they produce?** This is a matter that is too seldom taken into consideration by the average buyer, many of whom are more interested in hunting for the lowest in price, while progressive farmers and gardeners appreciate that "blood will tell" in seeds as well as in animals, and realizing that their profits for a whole year depend upon the seeds they plant, they avoid "cheap" seeds as being poor economy, knowing that **superior** seeds produce superior and more profitable crops.

While we do not wish to appear egotistical, yet in justice to ourselves and our seeds, and for the benefit of people who have never dealt with us, we claim to be the producers and distributers of the **best seeds in the world**—it is our business and our profession. We know that planters of seeds buy them entirely on confidence; we realize that to lose a man's confidence is to lose his patronage. If you have never used our seeds, **try them this year**, and we will try and retain your confidence, as we have succeeded in doing with annually-increasing thousands for over half a century.

Henderson's Superior Farm Seeds
Are Grown from Pedigree Strains

HENDERSON'S **Superior Grass, Clover, Cereal** and other **Farm Seeds** (which we supply only direct to the planter) are not only of the best pedigree strains, but are of high germination and of choicest, recleaned quality. Our warehouses (250,000 bushels capacity), being especially equipped with the most modern seed-cleaning machinery, enable us to supply direct to the farmer Recleaned Grass and other seeds of undoubted superiority at lowest possible prices when quality is considered. We are to-day the largest direct suppliers of recleaned grass seeds to the farmer in America, and, if at times lower prices are quoted, depend upon it that it is at the sacrifice of quality, for we are so equipped that **no responsible merchant can undersell us for the same qualities.** We would warn our customers that the markets are at the present time flooded with much inferior, and, in many cases, absolutely worthless, grass and clover seeds, much of which has been purposely adulterated and is sold to the unsuspecting farmer by country merchants who do not have the expert knowledge to detect the adulteration, and upon whom it has been foisted by unscrupulous dealers.

HENDERSON'S
Superior SEEDS
ARE PROCURABLE
ONLY DIRECT FROM US!

We no longer supply through dealers, storekeepers, etc.
By only supplying the planter direct we protect many customers who have had inferior Seeds, etc., foisted upon them as "Henderson's."

FARM MANAGERS.

We have from time to time applications by competent men for positions as farm and estate managers, men who have been trained to the business, and are well posted on agriculture generally, and the raising and care of all kinds of farm stock. We will be very pleased to enter into correspondence with those who require the services of such. We make no charge to either employer or employee.

Peter Henderson & Co.

CHAS. HENDERSON, *President.* 35 & 37 CORTLANDT ST., NEW YORK.

HENDERSON'S
SPECIAL GRASS MIXTURE

For Hay and Permanent Pasture.

This famous mixture has seeded thousands of acres of meadow and pasture land for progressive farmers and stock raisers in various parts of the United States, with most gratifying results. It is a well-balanced combination of a number of native and acclimated foreign grasses and clovers, blended and improved upon during exhaustive trials under widely varied conditions, soils and localities for several years, until practically perfect, our aim being to produce under the extremes of the American climate of heat, drought and cold, a PERMANENT, dense and deep-rooting turf that would yield year after year the maximum quantity of hay and afterwards to afford, if desired, a constant and abundant pasturage. Another important essential being superior quality, inviting, sweet and nourishing, whether as hay or pasture. That we have been successful is attested by the numerous letters of praise for this special grass mixture that we have received from the users, and the tributes to its merits published in many of the agricultural journals. Space permits us to print extracts from but a few of these encomiums on pages 4 and 5, to which we refer you, and for the complete description of Henderson's Special Grass Mixture for Hay and Permanent Pastures, see next page,3

PRICES
Henderson's Special Grass Mixtures

(Described on pages 3 to 8)

Per Bushel of 14 Pounds.

For Hay and Permanent Pasture for Light soils	*Per bushel,*	*$2.50*
" " " " Medium soils	*20 bush. at*	*2.45*
" " " " Heavy soils	*50 " at*	*2.40*
" Woodlands and Orchards, ... (page 8)	*100 " at*	*2.35*
" Hay only, ... (page 6)		
" Pasture only, ... (page 7)		
" Renovating Old Pastures, ... (page 8)		

MIXED PERMANENT CLOVERS

10 Pounds required for 1 acre, **$2.25.**

should be sown in addition to the above grass mixtures, but on account of greater weight the clover should be sown separately, and in cold latitudes, in the spring. This mixed clover comprises White, Mammoth Perennial or Cow Grass, Alsike, etc.

...Henderson's Special Grass Mixture...

For HAY and PERMANENT PASTURE

Produces Wonderful Hay Crops and Luxuriant Pasture . . . . . .

The Yield of Hay under favorable conditions averages 3 to 4 tons per acre at the first cutting, or nearly double that of Timothy and Clover, and larger yields are not unusual; then, if not pastured, the second crop is usually about one-half the quantity of the first. This shows the great value of this special mixture of grasses over Timothy, which seldom yields a second crop, nor can it be pastured after cutting without seriously damaging the next season's yield, for Timothy after cutting throws its strength into its bulbous base, on which its yield the next season depends.

In Earliness this special grass mixture is about two weeks ahead of Timothy, enabling the haying to be finished before grain harvesting presses. This earliness gives a longer growing season for the aftermath, whether it is to be pastured or again cut for hay.

Pasturage. After the hay crop is cut the grass commences to grow at once, recovering its verdure in a few days' time and affording a continuous pasturage even through dry summer weather, until winter sets in; or the field may be pastured from earliest spring and still be in prime condition for yielding hay or pasture the next season, and so on year after year, for the various grasses composing this special mixture are all dense, fibrous-rooting varieties, sustaining no injury from cropping—proving its value over Timothy, which would be injured, probably ruined, under similar conditions.

Permanency. Henderson's Special Grass Mixture for Hay and Permanent Pasture, if properly laid down, will maintain its heavy cropping qualities twenty years and more if occasionally top-dressed with manure or suitable commercial fertilizer, and it will steadily improve, whereas a stand of Timothy soon commences to become thin and in three or four years must be plowed up and resown or rotated—with all of the attendant expense.

Heat and Drought-Resisting. The various kinds of grasses composing this special mixture are fibrous, deep-rooting varieties that spread and intermingle, forming a tough matted sod, free from stooling or tussock growth, and, in consequence, the grasses protect their own roots and are therefore less susceptible to extremes of heat and drought, retaining their verdure even through dry, hot weather, when Timothy is burned up.

Adapted to a Wide Range of Soils and Climate. This special mixture of grasses will thrive under a greater variety of soil and climatic conditions than Timothy, and in many instances gives bountiful returns where Timothy can scarcely be grown.

Daisies cannot exist in an established field of this special grass mixture—which covers the ground so thoroughly with dense turf, and if daisies be in the field they do not get a chance to seed, the hay being ready to cut before the daisies are ripe.

The Initial Cost is more in seeding with Henderson's Special Grass Mixture, ***but*** the ultimate returns are much more profitable than those from ordinary hay and pasture fields, and when the other advantages are considered—including the permanency of a maintained yield—the first expense will be found a paying and satisfactory investment.

The Seed Required. The amount of seed necessary to sow an acre largely depends on the quality of the land; the poorer the soil the larger the quantity required. Taking one soil with another, and owing to the fact that the seeds we use are of higher quality and better cleaned than ever, a fair average would be ***3 bushels to the acre.*** The thicker the seeds are sown the sooner will a fine, close turf be obtained.

To those accustomed to sow Timothy and Clover, the quantity of seed we recommend will seem large, but the seeds of these permanent grasses are quite different from Timothy, being much larger and lighter; but experience has proven that satisfactory results cannot be obtained with less seed than we recommend, unless under exceptionally favorable circumstances. It may be sown in either spring or fall.

A Description of Soil and Locality should be given when ordering. In the preparation of these mixtures for permanent pasture, the greatest care is exercised in selecting such varieties as are suited to the soil to be sown and are likely to realize the object in view. To facilitate this, ***a description of the soil and climate, and the purpose for which sown,*** and if ***with or without*** a grain crop, should accompany each order. ***FULL DIRECTIONS FOR SOWING ENCLOSED IN EVERY BAG.***

Prices . . .

HENDERSON'S SPECIAL GRASS MIXTURE for HAY and PERMANENT PASTURE, for light soils, medium soils or heavy soils (state which in ordering): $2.50 per bushel of 14 lbs.; 20-bushel lots @ $2.45 per bushel; 50 bushels @ $2.40; 100 bushels @ $2.35. Mixed Permanent Clovers, 10 lbs. to sow an acre, $2.25. (See page 2.)

HENDERSON'S SPECIAL GRASS MIXTURE

for HAY *and* PERMANENT PASTURE.

Described and priced on pages 2 and 3.

ONLY A FEW OF MANY LETTERS OF PRAISE

from STOCK MEN *and* FARMERS

We have HUNDREDS MORE *of* SIMILAR PURPORT

PENNSYLVANIA.

"The grass seed I bought of you produced four mowings for feeding during last season and is the best piece of grass in this section." REV. U. MYERS.

"The growth is simply wonderful, and do not think there is any other grass to equal it for hay or pasture. I sowed about ten acres, from which I have cut what I consider the best hay ever made on my farms." J. S. LONG.

"The Grass seed sent me turned out well. It makes a good grass for meadow or for grazing. It is fine, close grass and the cattle like it." PAUL A. OLIVER.

"The green appearance of the field attracted universal attention. The seed seemed to get hold of the soil completely. ***It has far surpassed clover and timothy in the amount it yields."*** J. B. CUMMINGS.

CONNECTICUT.

"The 16 bushels Permanent Pasture Grass you sent me has proved a perfect success. I shall want more in the spring." J. S. MACFARLANE.

"I used 30 bushels of your mixture for permanent meadow on seven acres in one field, and a little less than three acres in another. This year from the three acres I got 9 two-horse loads of excellent quality, and from the seven acres I got 28 two-horse loads, averaging a ton each. I expect to get a good second crop. The mixtures are better than the old-fashioned seeding of Timothy, Red-top and Clover." R. E. HOLMES.

NEW JERSEY.

"From your Permanent Pasture Mixture, about eighty bushels, I had two crops, together about 3½ tons per acre." E. J. GEHBEN.

"Your Grass Mixture was acknowledged by all who saw it to be the best field of grass in this section." JOHN S. BIGELOW.

"We mowed a very good crop the 20th of June, and in two weeks had good pasture—the best in the township, and very good now, and much admired by the neighboring farmers. Our Timothy meadow is nearly all killed or dried up, no pasture. But the Special Grass Mixture is now very nice and green." E. W. BRUEN.

"I have an even, solid stand of grass that affords ample pasture, and ***far better than those adjoining me who depend on Clover and Timothy."*** E. P. LAFETRA.

VERMONT.

"I have used your grass seeds for several years, and they are easily the best in the market." F. C. KIMBALL.

"I am more than pleased with the results of both Lawn and Pasture, and am satisfied that P. H. & Co.'s seeds are unsurpassed." C. F. HASTINGS.

VIRGINIA.

"My manager is enthusiastic over your Mixture for Hay and Permanent Pasture. He claims this year he cut 3 tons per acre the first cutting, 1¾ tons the second, and will cut 2 tons the third. The field is a grand sight. People come for miles around to see it." E. E. BARNEY.

IOWA.

"The Grass Mixture I got of you has done extra well, especially this year of drought. ***It stood the drought and yielded about twice as much as Timothy, and the cattle seem to do better on it."*** WILLARD WATSON.

MARYLAND.

"It gives me pleasure to inform you that from the Grass seed I bought of you I got a good stand and a splendid growth. I am well pleased, it does well in this section." S. C. JONES.

NEW YORK.

"The crop was much in excess of ordinary grass seeds or Timothy used in the neighborhood. As an evidence of my satisfaction, I have seeded down another lot this fall, using the same seed." JAMES A. MILLER, JR.

"The Special Grass Mixtures bought from you have given every satisfaction, and, ***after my experience with them, I should never think of planting Timothy again."*** CHARLES H. LEAYCRAFT.

"It's the finest piece of grass anywhere about here. *An old farmer told me last week it would cut 3½ tons to the acre sure."* JAMES M. RICHARDS.

"Your Special Mixture of Grasses was a success; compared with Timothy and Clover, ***the yield is double."*** OSCAR SILLECK.

"It has yielded more than double the amount of pasture a piece of Timothy and Clover of the same size would have done under the same conditions." FRANK G. MCCOLLUM.

MASSACHUSETTS.

"The Grass Seed turned out very satisfactory, and we have this year cut three large crops of grass from the land seeded last fall with the seed bought of you." C. E. ROGERS.

"The seed for the meadow land was all right, and has proved a great success in every way. ***I have cut two heavy crops each year."*** W. H. FAIRBANK.

"The Grass Seed came up so rank I had to cut it the forepart of June, a very heavy crop of nice hay." E. L. BARTLETT.

"This is the third year and there was a heavy crop cut on it two weeks before Timothy was ready, and much to my surprise, there was quite a good second crop in spite of the very dry season." H. L. PARK.

HENDERSON'S SPECIAL GRASS MIXTURE FOR HAY AND PERMANENT PASTURE....

OFFERED ON PAGES 2 AND 3.

EXTRACTS FROM SOME OF THE TRIBUTES OF PRAISE BY THE AGRICULTURAL PRESS.

From "Country Gentleman," published in Albany, N. Y.

GRASS CULTURE.

By invitation of Messrs. Peter Henderson & Co. of New York, a representative of this paper visited their experimental grass plats.

To reproduce English turf in the face of American drouths and heat may not be possible; **to better the common clover and timothy practice, with its frequent thin results and speedy running out, is surely feasible.** Instead of three or four varieties, ten to fifteen or twenty are used; tall and short grasses, coarse and fine, late and early sorts, are deftly combined in varying proportions according to the end in view.

Below the taller grasses was a thick mat of finer kinds, and the close, rich turf hid every particle of soil. There did not seem to be room for another spear of grass. Going over to an ordinary timothy meadow near by, the contrast was striking. The individual spears in a foot square could easily be counted; "standing-room" for more was abundant. The soil had not been "worked for all it was worth," and the thoughtful farmer might do some suggestive figuring.

From "American Agriculturist," published in New York City.

BEST GRASSES FOR HAY AND FOR PASTURE.

By a judicious choice of seeds, mixtures have been effected which will give constant pasturage in this climate from early spring until late in the autumn.

Timothy, and in many parts "timothy and clover," is the standard grass in the country. While timothy is a valuable grass, there are some other kinds so much better, which last longer, yield a heavier crop, will stand various climatic and soil conditions better, it is astonishing that the majority of farmers should still stick to the timothy without even giving one or more of the other kinds and mixtures a fair trial.

It should be remembered that a discriminate mixture of grasses and clover gives a better result than does any kind grown by itself, for the simple reason that mixtures are bound to grow closer together on the ground, and thereby their component species protect one another from undue heat and drought.

Such mixtures are far superior to timothy or "timothy and clover," or any one grass, costing but a little more, lasting much longer, and giving frequently more than double the yield.

From "Farm and Home," published in Springfield, Mass.

MORE HAY AND BETTER PASTURE.

Bare pastures are a source of loss to the farmer. The broad acres that must be devoted to grass are paying taxes and interest, and if not covered with luxuriant hay and pasture are breeding weeds. If seeded with well-proportioned mixtures of proper grasses, even the steep hillside will yield pasture and hay, which every farmer knows is rich with money.

The tendency to run out and the many thin stands obtained with timothy and clover, or with any separate grasses, led to the trial of mixtures of imported and other grasses which have become naturalized in America. The natural sod is formed of a mixture of many grasses, each variety having a certain use in meeting the varying conditions of growth.

The enormous yield of nearly 4½ tons of good hay per acre should convince any one that more hay and better pasture can be grown with mixtures than with timothy and clover alone, as, under the very same conditions, the latter yielded less than a ton and a half (2,760 lbs.) per acre.

From "Rural New Yorker," published in New York City.

THE VALUE OF GRASS SEED MIXTURES.

This firm (P. H. & Co.) has been engaged in a long series of experiments in making up mixtures of grass seeds for hay and permanent pasture, and also for lawns. The underlying idea seems to be that these different grasses, having different root systems, will occupy the ground more fully if a number of different kinds are sown together.

The first piece we visited was one that was seeded with about three bushels per acre of Henderson's Special Grass Mixture for Hay and Permanent Pasture for Light Soil. Mowing had begun in this plot, **and it was so thick on the bottom that much difficulty was experienced in getting the mower through it.**

The earliness of the grasses as compared with Timothy is a desirable feature, as the haying season comes on at a time when there is little pressing work going on, and the hay is all in the barn before grain harvest.

Few of the old-time methods of seeding will give an amount of hay equal to this first cutting, and after the hay is off, the grasses will start up again so quickly that fine pasturage will be afforded, or at least 1½ ton per acre more hay may be cut in August or September.

We are pleased to offer

ADVICE FREE

on subjects in connection with

PREPARATION

and

MAINTENANCE

of

GRASS LANDS, FORAGE AND GREEN CROPS, SOILING, ROTATION, SILOS, etc., etc.

HENDERSON'S SPECIAL GRASS MIXTURE for PERMANENT HAY

PRODUCES

DOUBLE THE QUANTITY

of

TIMOTHY and CLOVER

and maintains the yield 20 years and more.

SUPPLIES A GOOD CROP OF

HAY

In dry seasons when ordinary Hayfields are burned up. :: ::

QUALITY SUPERIOR.

ALTHOUGH the most widely cultivated hay grass in the United States is Timothy, or a mixture of Timothy and Clover, and while they answer the purpose admirably on farms **where the soil is suitable** and where the usual three and four years' rotation is carried on, yet, **there are many other grasses which will yield more profitable returns.**

The prevailing low prices of Wheat, Corn and other grain crops have made their growing, and the usual rotation farming unprofitable, especially in the Eastern States, where it is impossible to compete with the rich prairie soils of the West, but **hay still yields a fair profit,** and the farmer whose land is sown **with a proper mixture of Permanent Grasses, requiring only an occasional top-dressing of manure or fertilizer to MAINTAIN THEIR HEAVY CROPPING QUALITIES FOR TWENTY YEARS OR MORE,** does away with the necessity for plowing and rotation cropping with all its attendant expense.

The most serious item of expense on the farm, the labor bill, can be largely reduced and thus give reasonable prospect of **profitable annual returns at a minimum of labor and expense.** The seed of these Permanent Grasses is more costly than Timothy, and more is required per acre, but by reason of their heavy cropping qualities and permanency **they soon repay the extra cost and leave a handsome margin for the farmer,** when the cost of plowing, harrowing and re-seeding Timothy every three and four years is taken into consideration.

The grasses used in this Mixture recover quickly after the hay crop is cut, and yield either a second crop or pasture in the greatest abundance during the summer and fall months. Within a few days after cutting, their rich green appearance as compared with Timothy is a desirable feature, especially in fields close to the house, as it gives a park-lawn effect to the surroundings. *Sow 3 bushels per acre. Directions in every bag.* **Price,** $2.50 per bush.; 20 bush. @ $2.45; 50 bush. @ $2.40; 100 bush. @ $2.35. (State whether wanted for light, medium or heavy soils.) **Mixed Permanent Clovers,** 10 lbs. to sow an acre, $2.25; should be sown in spring. (*See page* 2.)

HENDERSON'S SPECIAL GRASS MIXTURE FOR PERMANENT PASTURE.

HENDERSON'S SPECIAL.... GRASS MIXTURE FOR PERMANENT PASTURE

THERE is no more important part of a farm than a good pasture, and that can only be obtained by the use of the proper grasses, varieties that have different root formations and different habits and seasons of growth, in order to maintain a **rich, close turf throughout the entire season.** Timothy should never be used for pasture, because it will *not* stand trampling, and soon runs out when heavily pastured and at best is short-lived, as compared with the permanent grasses used in our Special Mixtures. These Mixtures contain over a dozen of the best permanent grasses, both American-grown and imported. All are permanent, and when once established **will last indefinitely,** if the fertility of the soil is kept up by occasional top-dressing. Owing to the different habits of growth, the grasses grow closer together and form a rich, close turf, covering the soil completely and forming a protection to the roots during hot, dry weather, **thereby enabling these grasses to maintain a rich green appearance when Timothy and other grasses are burned up.** The thick turf also prevents animals poaching through and destroying the pasture.

We have for years studied the subject of pastures and their formation with exhaustive tests on our own trial farms, where we have had growing separately and in different mixtures all the grasses of which seed can be procured in commercial quantities. These trials have been broadly studied and the results watched with critical interest on the farms of our customers. We are in an unrivalled position to advise you on the subject and to supply suitable grass seeds for Permanent Pasture. While it costs a little more to seed an acre with this special mixture, yet results are so superior and permanent that they more than offset the original cost. Sow not less than 3 bushels per acre. Directions enclosed in every bag.

PRICE: $2.50 per bushel; 20 bushels @ $2.45; 50 bushels @ $2.40; 100 bushels @ $2.35. (State whether wanted for light, medium or heavy soils.)

Mixed Permanent Clovers, 10 lbs. to sow an acre, $2.25. Should be sown in spring. (*See page* 2.)

SUPPLIES

CONTINUOUS and ABUNDANT

PASTURAGE

For 20 Years

AND MORE,

From Earliest Spring until Winter.

GREEN AND SUCCULENT ALL SUMMER LONG, WHEN ORDINARY GRAZING LANDS ARE BURNED UP.

UNQUESTIONABLY SUPERIOR.

HENDERSON'S Renovating Mixture FOR Improving Old Pastures.

$2.50 per bushel of 14 lbs.
20-bushel lots, $2.45 per bushel.
Mixed Clovers, 5 lbs. to sow an acre, $1.15.

GRASS lands, in consequence of being constantly mown or pastured without being fertilized or manured, frequently become impoverished and deficient in the more valuable and nutritious grasses, and in time become unprofitable. It is frequently unnecessary to plow up such land unless it be full of weeds. The turf should be well harrowed with a sharp-tooth harrow, and, if possible, top-dressed with soil and well-rotted stable manure, which should be well harrowed in, and then sown with **HENDERSON'S RENOVATING MIXTURE**, at the rate of one bushel per acre, and five pounds of mixed clovers. This mixture is composed of those sorts that are best suited for sowing on old pastures or meadows, and it **will speedily improve the quality and increase the produce.** March and April are the best months for sowing, choosing an interval between rains if possible, though, if inconvenient to sow then, very satisfactory results can be obtained by fall sowing. After sowing, the ground should be lightly harrowed and afterward well rolled.

HENDERSON'S Special Grass Mixture FOR Woodland Pastures.

$2.50 per bushel of 14 lbs.
20-bushel lots, $2.45 per bushel.

UNLESS there is a superabundance of nitrogen in the soil and a consequent excessive wood growth, in which case it is desirable to sow the land with grasses, it is now customary to sow orchards with cover crops, such as Cow Peas, Clover, etc. These are plowed under and the orchard kept in constant cultivation. But where it is desired to sow the orchard with grass, or for woodland pastures, even when the shade is comparatively dense, we can with all confidence recommend this mixture.

It is composed of a selection of grasses which from exhaustive experiments we have found will thrive under trees. Orchard Grass is, of course, one of the best grasses for the purpose, but this mixture is much superior, as it will make a closer and more even pasture than Orchard Grass alone.

NATURAL GRASSES.

Descriptions of varieties adapted to all soils, climates and conditions in the United States.

"GRASS IS KING." It embraces one-sixth part of the whole vegetable kingdom, and is the true basis of Agriculture in the highest condition.
"No grass, no cattle; no cattle, no manure; no manure, no crops!"

CREEPING BENT OR FIORIN.
(Marsh or Broad Leaved Bent.)

Botanical, *Agrostis alba stolonifera.* German, *Fioringras.* French, *Agrostide blanche stolonifera.*

Perennial. Time of flowering, July. Height, 1 to 2 feet.

This grass is well adapted for moist situations, and valuable for affording herbage in early spring and late autumn, before other grasses have commenced or have stopped growing, and in consequence is advantageously included in permanent pasture mixtures. It is also excellent for lawns.

Sow (if alone) 2 bushels per acre.

Weight, about 20 lbs per bushel.

Price, 28 cts. per lb.; $5.25 per bushel; $25 00 per 100 lbs.

CREEPING BENT.

MEADOW FOXTAIL.

Botanical, *Alopecurus pratensis.* German, *Wisen Fuchsschwanz.* French, *Vulpin des prés.*

Perennial. Time of flowering, May. Height, 2 to 3 feet.

This grass closely resembles Timothy, but flowers much earlier, and thrives in all soils excepting dry sands or gravels. Its highest state of perfection is attained in strong, moist, rich soils, and it is particularly valuable as a permanent pasture grass, being of very early and rapid growth. It is highly relished by stock; endures close cropping and forms a luxuriant aftermath, and quickly revives after a long drought. It is very nutritious, but unfortunately loses a large percentage in weight after being cut for hay. Sow (if alone) 3 to 4 bushels per acre; weight, about 7 lbs. per bushel.

Price. 40 cts. per lb.; $2.60 per bushel; $35.00 per 100 lbs.

MEADOW FOXTAIL.

TALL MEADOW OAT GRASS.

Botanical, *Arrhenatherum avenaceum.* German, *Französisches Raygras.* French, *Avoine élevée.*

Perennial. Flowers in May and June. Height, 2 to 4 feet.

(This is the Avena Elatior of Linnæus.) Valuable for permanent pastures on account of its luxuriant early and late growth. It is also highly recommended for soiling, as it furnishes an abundant and early supply of fodder; after being mown it produces a very thick aftermath. It grows spontaneously on deep, sandy soils when once naturalized, and succeeds on tenacious clover soils. Sow (if alone) 4 to 5 bushels per acre; weight, about 10 lbs. per bushel. Price, 28 cts. per lb.; $2.70 per bu.; $25.00 per 100 lbs.

TALL MEADOW OAT GRASS.

RHODE ISLAND BENT.
(Brown Bent or Dog's Bent.)

Botanical, *Agrostis canina.* French, *Agrostide des chiens.*

Perennial. Time of flowering, June and July. Height, 1 to 2 feet.

Its hardy creeping habit renders it desirable for close sward, and it is found to be a very desirable sort in some parts of the country for lawns. Sow (if alone) about 3 bushels per acre; weight, 14 lbs. per bushel. Price, 40c. lb.; $5.25 bushel; $35.00 per 100 lbs.

AWNLESS BROME GRASS.

Botanical, *Bromus inermis.* German, *Trespe de Hongrie.* French, *Brôme de Hongrie.*

Perennial. Time of flowering, June to August. Height, 2 to 5 feet.

For price. full description and illustration of this valuable new grass, see page 14.

ROUGH STALKED MEADOW GRASS.

Botanical, *Poa trivialis.* German, *Gemeines Rispengras.*
French, *Paturin commun.*

Perennial. Time of flowering, July. Height, 2 to 3 feet.

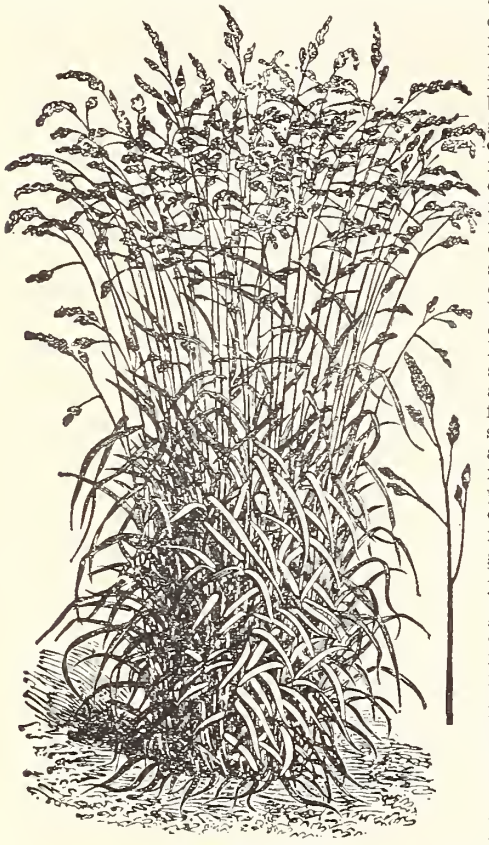
The Lombardy "Queen of Meadow" Grass. An excellent grass for good, deep, rich, moist meadows and stiff, heavy clays. It gives a constant supply of highly nutritive herbage, for which horses, sheep and cattle show a marked partiality. Sow (if alone) 1½ bushels to the acre; weight, about 14 lbs. per bushel. Price, 40 cts. per lb.; $5.25 per bushel; $35.00 per 100 lbs.

ORCHARD GRASS. (Rough Cocksfoot.)

Botanical, *Dactylis glomerata.* German, *Gemeines Knaulgras.*
French, *Dactyle pelotonné.*

Perennial. Time of flowering, June. Height, 3 feet.

This is one of the most valuable and widely known of all the grasses, being of exceptional value in permanent pasture mixtures on account of its earliness and its rapidity of growth. It is ready for grazing several days before any other grass, except Meadow Foxtail. After being mown it produces a luxuriant aftermath. It is quick to recover from close cropping, "five or six days being sufficient to give a good bite." It is relished heartily by all kinds of stock, sheep even passing all other grasses to feed upon it. It succeeds on almost any soil, especially in moist, shady places, and in porous subsoils its roots extend to a great depth. It exhausts the soil less than many other grasses, and stands drought well, keeping green and growing when other grasses are dried up. It flowers about the time of Red Clover and makes a splendid mixture with it to cut in blossom for hay, although it should be cut early or grazed close, as it becomes hard and wiry and loses its nutritious qualities, to a certain extent, when ripe. It should not be sown in mixture with Timothy, for, being three weeks earlier, it becomes pithy if allowed to stand until the Timothy is ready to cut. Cut at the proper time, however, there is no better or more succulent hay. It is inclined to grow in tufts, and should therefore have other grasses sown with it and be sown very evenly. This tufting characteristic unfits it for lawn purposes. Sow (if alone) 3 to 4 bushels per acre; weight, about 14 lbs. per bushel. Price, Choicest, *Re-cleaned* Seed, 22c. lb.; $2.75 per bushel; $18.00 per 100 lbs.



ORCHARD GRASS.

SWEET-SCENTED VERNAL.

(True Perennial.)

Botanical, *Anthoxanthum odoratum.* German, *Gemeines Geruchgras.*
French, *Flouve odorante.*

Perennial. Time of flowering, May and June. Height, 1 to 2 ft.

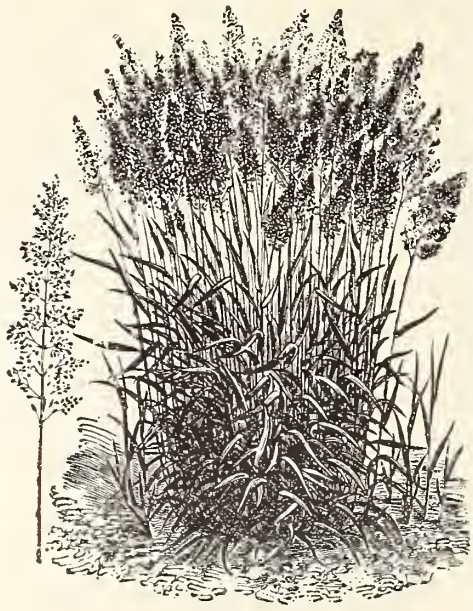
Very valuable on account of its delicious perfume, to which our hay fields and pastures owe their fragrance. The odor is more distinguishable when the grass is drying or dried, and when included in hay its aroma is imparted to the other grasses, making it relished by the stock and enhancing the value of the hay. Sow (if alone) 3½ bushels per acre; weight, about 10 lbs. per bushel. Price, $1.60 per lb.; $15.50 per bushel;

RED TOP.

(Burden's Grass, Herd's Grass *of the South,* and in poor soils "Fine Top.")

Botanical, *Agrostis vulgaris.* German, *Amerikan red-top.*
French, *Agrostis d'Amérique.*

Perennial. Time of flowering, July. Height, 1 to 2 feet.



RED TOP.

Valuable either for mixing in hay or permanent pasture grasses; is common throughout the country; succeeds almost everywhere, but reaches its highest state of perfection in a moist, rich soil, in which it attains a height of 2 to 2½ feet. If for pasture, it should be fed close, as it is not relished after it grows up to seed. It is often sown with Timothy and Red Clover; the latter of course soon disappears, the Timothy follows; then the Red Top takes its place. Sow (if alone) 3 bushels; weight, 14 lbs. per bush. Price, 12 cts. per lb.; $1.45 per bushel; $9.00 per 100 lbs. *Fancy.*—Weight, 32 lbs. per bushel. Price, 18 cts. per lb.; $5.25 per bushel of 32 lbs.; $15.00 per 100 lbs.

HARD FESCUE.

Botanical, *Festuca duriuscula.* German, *Harter Schwingel.*
French, *Fétuque durette.*

Perennial. Time of flowering, June. Height, 18 to 24 inches.

A dwarf growing, very hardy grass of great value, and the most robust of the dwarf grasses. Succeeds in dry situations, and is one of the most important of the Fescues for permanent pastures. In hay its presence indicates a superior quality, and after being mown it produces a very large quantity of food. It comes early, stands long droughts well; stock eat it with avidity, especially sheep. The common name solely applies to the flower heads, which, when ripe, become decidedly hard; the herbage, however, is decidedly tender and succulent. From the fineness of its foliage and its resistance to drought in summer and cold in winter, it is well adapted for lawn grass mixtures. It is somewhat inclined to stool, but when sown with other grasses, if sown evenly, it will not show this characteristic. Sow (if alone) 2½ bushels per acre; weight, about 12 lbs. per bushel. Price, 22c. per lb.; $2.40 per bushel; $18.00 per 100 lbs.

HARD FESCUE.

We are prepared to make up Special Mixtures of Grass Seeds for particular purposes—situations or conditions—and any correspondence in regard to such will receive our prompt attention.—P. H. & Co.

TALL MEADOW FESCUE.

Botanical, *Festuca elatior*. German, *Hoher Wiesen-Schwingel*. French, *Fétuque élevée*.

Perennial. Time of flowering, June and July. Height, 3 to 4 feet.

A coarse growing grass, nevertheless it is very nutritive and productive, and is naturally adapted to moist, stiff or clayey soils and shady woods, and is considered by some authorities to be one of the best grasses in cultivation. It is greedily eaten by stock when green, and should be included in all permanent pasture mixtures for moist or strong lands. It also makes a very good quality of hay, but is too robust for lawn purposes. Sow (if alone) 2½ bushels per acre; weight, about 14 lbs. Price, 50 cts. per lb.; $6.50 per bushel; $45.00 per 100 lbs.

TALL MEADOW FESCUE.

SHEEP'S FESCUE.

Botanical, *Festuca ovina*. German, *Schafschwingel*. French, *Fétuque des brebis*.

Perennial. Time of flowering, June and July. Height varies from 6 to 20 inches.

SHEEP'S FESCUE.

For good upland or dry pastures, a large portion of this grass should be included in the mixture, especially if it is used for sheep grazing, as it is greatly relished by them. The Tartars generally pitched their tents in proximity to this grass on account of its value to their herds. It is short and dense in growth, and its excellent nutritive qualities more than counterbalance its slight deficiency in quantity. Its fine foliage and compact habit render it desirable for lawn mixtures. Sow (if alone) 2½ bushels per acre; weight about 12 lbs. per bushel. Price, 22 cts. per lb.; $2.40 per bushel; $18.00 per 100 lbs.

FINE LEAVED SHEEP'S FESCUE.

Botanical, *Festuca ovina tenuifolia*. German, *Feinblättriger Schwingel*. French, *Fétuque á feuille menue*.

Perennial. Time of flowering, June. Height varies from 8 to 24 inches.

This is similar to the Sheep's Fescue mentioned above, except that the leaves are much finer. Cattle are very fond of it, and it grows naturally in many parts of the world. It is found in the Arctic regions, in the wilds of New Zealand, and in Europe. In the northern districts of Great Britain it sometimes forms the whole food of the Highland cattle. It is very suitable for permanent pasture, especially on uplands and dry soils. Its rich, dark green gives a fine appearance to hay, and renders it also valuable for lawn mixtures for dry situations.

Sow (if alone) 3 bushels per acre; weight, about 14 lbs. per bushel. Price, 45 cts. per lb.; $5.75 per bushel; $40.00 per 100 lbs

VARIOUS LEAVED FESCUE

VARIOUS-LEAVED FESCUE.

Botanical, *Festuca heterophulla*. German, *Wechselblättriger Schwingel*. French, *Fétuque feuilles variées*.

Perennial. Time of flowering, June and July. Height, 2½ to 3 feet.

A native of France and a valuable grass for permanent pastures, especially on uplands, and is a very popular continental grass, well adapted where a heavy swath is wanted. It yields a large bulk of herbage, but produces little feed after mowing. Its beautiful, dark green foliage renders it suitable for park mixtures. Sow (if alone) 3 bushels per acre; weight, about 14 lbs. per bushel. Price, 28 cts. per lb., $3.65 per bushel, $25.00 per 100 lbs.

RED or CREEPING FESCUE.

Botanical, *Festuca rubra*. German, *Rother Schwingel*. French, *Fétuque rouge*

Perennial. Time of flowering, June and July. Height, 2 to 2½ feet.

This grass is of a remarkable creeping habit and endures severe droughts. Its roots penetrate so deeply into the soil that it remains fresh and green when other varieties are apparently dried up. It is particularly adapted for dry pastures by the seaside and on loose, light soils, the slopes of railroad cuts, etc., if dry. It yields an average bulk of herbage of fair quality, although most nutritious at time of flowering. Sow (if alone) 2½ bushels per acre; weight, about 14 lbs. per bushel. Price, 32 cts. per lb.; $4.25 per bush.; $28.00 per 100 lbs.

RED FESCUE

MEADOW FESCUE.

(English Blue Grass or Sweet Grass.)

Botanical, *Festuca pratensis.* German, *Wiesenschwingel.*
French, *Fétuque des prés.*

Perennial. Time of flowering, June and July. Height, 18 to 24 inches.

MEADOW FESCUE.

One of the very best of our natural grasses; very valuable for permanent pastures. It is highly nutritious and greedily eaten by all kinds of stock and is very fattening; makes excellent hay and succeeds well in almost all soils, although it does best in moist land. It is robust in habit and never grows in tufts, although it should be sown with other grasses. It is one of the earliest grasses in the spring and one of the latest in autumn, being particularly valuable for fall and winter pastures. In the climate of Virginia it often remains green under the snow through the winter, and in consequence is frequently called "Evergreen Grass." Sow (if alone) 2½ bushels per acre; weight, about 22 lbs. per bushel. Price, 18c. per lb.; $3.75 per bu.; $16.00 per 100 lb.

ITALIAN RYE-GRASS.

Botanical, *Lolium italicum.* German, *Italienisches Raygras.*
French, *Ray-gras d'Italie.*

Biennial. Time of flowering, June or July. Height, 18 to 30 ins.

A variety unequalled for producing an abundance of nutritious feed in the early spring, as well as throughout the season, and it gives quick and successive growths until late in the fall, even if cut several times, providing the land is in good condition and not too dry. It is of succulent character and quickly responds to rich food and moisture. It thrives on almost any good soil, but reaches its most perfect state in moist, fertile land. As it is not perennial, it is not adapted for permanent pastures, but for one or two year's lay it is unsurpassed. Sow (if alone) 3 bushels per acre; weight about 18 lbs. per bushel. Price, 10c. per lb.; $1.50 per bush.; $8.00 per 100 lb.

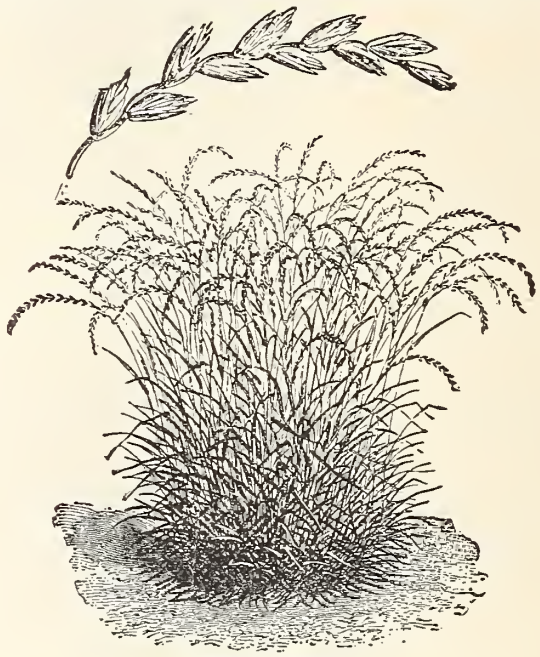
ITALIAN RYE-GRASS.

ENGLISH or PERENNIAL RYE-GRASS.

Botanical, *Lolium perenne.* German, *Englisches Raygras.*
French, *Ray-grass Anglais.*

Perennial. Time of flowering, June. Height, 15 to 24 inches.

This grass is considered invaluable for permanent pastures. It produces an abundance of remarkably fine foliage, tillers out close to the ground and soon forms a compact sward. After being cut it grows up in a very short time and remains bright and green



ENGLISH RYE-GRASS.

throughout the season; it consequently is well adapted for lawn mixtures. It is also a good variety for hay if cut when in blossom, as it is then most nutritious; if cut much later it becomes woody. It flourishes best in situations not too dry or subject to droughts. Sow (if alone) 2½ to 3 bushels per acre; weight per bushel, 24 lbs. Price (*extra fine sample*), 10 cts. per lb.; $2.00 per bushel; $8.00 per 100 lbs.

WOOD MEADOW GRASS.

Botanical, *Poa nemoralis.* German, *Hainrispengras.*
French, *Paturin des bois.*

Perennial. Time of flowering, June. Height, 1½ to 2 feet.

This grass is now classed among our good "Shaded Pasture" grasses, and furnishes a fine succulent and nutritive herbage which is very much relished by cattle. It is splendidly adapted for moist, shady places, and should be included in all mixtures for permanent pastures and lawns for moist soils. It is particularly valuable for lawns overshadowed by trees. It produces a much thicker growth than either *Poa pratensis* or *trivialis.* Sow (if alone) 2 bushels per acre; weight per bushel, about 14 lbs. Price, 50 cts. per lb.; $6 50 per bushel; $45.00 per 100 lbs.

WOOD MEADOW GRASS.

TIMOTHY OR HERD'S GRASS
Of the North.

Botanical, *Phleum Pratense.* German, *Thimotée-Gras.*
French, *Fléole des prés.*

Perennial. Time of flowering, June and July. Height, 2 to 3 feet.

This luxuriates in moist, loamy soils, and sometimes, in favorable situations, attains a height of 4 feet, and even on light soils it yields fair crops. It is exceedingly nutritious, particularly when ripe, but as it is then very hard, it is better to cut it soon after flowering. It makes magnificent hay. On dry soils Timothy forms a bulbous swelling at the base of the stems from which the next year's growth starts. It is, therefore, highly injurious under such circumstances to pasture stock on the fall growth, as they trample and cut the leaves off that should protect it during the winter. Even in its most flourishing condition it is more or less injured by pasturing it. Sow (if alone) ½ to 1 bushel per acre; weight per bushel, 45 lbs.

TIMOTHY.

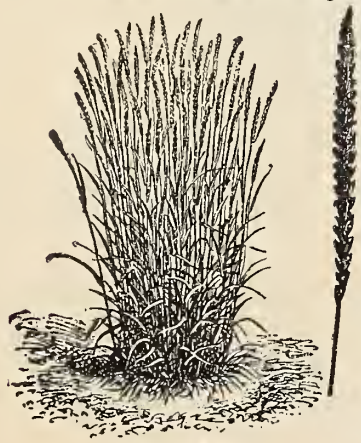
Price, **Henderson's Standard Sample**, 10 cts. per lb.; $3.25 per bushel; $7.00 per 100 lbs. *(subject to change without notice).*

A farmer who always looks for the cheapest and pays little or no attention to the quality and cleanliness of the Timothy, Clover and other grass seed he annually sows, will sooner or later find his farm overrun with weeds, and naturally conclude farming is a failure. The seeds of many of the most pernicious weeds so closely resemble the genuine seeds as to require an expert of long experience to detect them, and the farmer should be certain that the merchant has the expert knowledge. As an instance, hundreds of thousands of pounds of Red Clover heavily adulterated with Yellow Trefoil (a small yellow-flowered annual Clover of little or no value) have in recent years been sold to the unsuspecting farmer by country merchants who did not have the expert knowledge to detect it, and upon whom it had been foisted by **unscrupulous dealers,** *who by means of this adulteration can undersell the market and still make more than a legitimate profit.*

CRESTED DOGSTAIL. (Gold Grass.)

Botanical, *Cynosurus cristatus.* German, *Kammgras.*
French, *Crételle des près.*

Perennial. Time of flowering, July. Height, 1 to 1½ feet.



CRESTED DOGSTAIL.

A fine, short grass that should enter into all permanent pasture mixtures, especially for dry, hard soils and hills pastured with sheep, as it is very hardy and but little affected by extremes of weather. Sheep fed in pastures where this abounds are less subject to foot rot. It is tender and nutritious and relished by all stock until it commences to ripen; it then becomes wiry. On account of its close growing habit, the dense turf it produces and its evergreen foliage, it is particularly desirable for lawn mixtures. Sow (if alone) 1½ bushels per acre; weight about 21 lbs. per bushel. Price, 50 cts. per lb.; $10.00 per bushel; $45.00 per 100 lbs.

KENTUCKY BLUE GRASS.
Also called June Grass, Smooth Stalked Meadow Grass, Green Meadow Grass, and Spear Grass.

Botanical, *Poa pratensis.* German, *Wiesen Rispengras.* French, *Paturin des prés.*

Perennial. Time of flowering, June. Height, 10 to 15 inches.

This valuable grass is suited to a variety of soils, from an average dry one to moist meadows. It is exceedingly popular in most parts of the country as a pasture grass. It is very productive, unusually early, and presents a beautiful green appearance in early spring, while other grasses are yet dormant. It furnishes delicious food for all kinds of stock all through the season—unless there should be a protracted drought, which would cause it to slowly dry up—until the fall rains, when it springs forth and grows luxuriantly, and furnishes pasturage until frozen up in winter.

KENTUCKY BLUE GRASS.

In Kentucky and similar latitudes, when allowed its full fall growth, it makes fine winter pasture, and sheep, mules and horses will paw off the snow and get plenty to live on without other food. It makes a splendid lawn grass, forming a thick turf, and being of very even growth, producing only one flowering stem a year, while many other grasses continue to shoot up flower stalks throughout the season. Kentucky Blue Grass also makes hay of excellent quality, but the yield for this purpose is not equal to some other grasses. Sow (if alone) 3 bushels per acre. Though offered at the standard weight of 14 lbs. per bushel, we keep nothing but fancy recleaned seed, free from chaff, the natural weight of which is 20 to 25 lbs. per measured bushel. Price, 18 cts. per lb.; $2.25 per bushel of 14 lbs.; $15.00 per 100 lbs.

YELLOW OAT GRASS. (True.)

Botanical, *Avena flavescens.* German, *Goldhafer.*

Perennial. Time of flowering, July. Height, 18 inches.

YELLOW OAT GRASS.

Particularly adapted for dry meadows and pastures. Being of somewhat slow growth it should be sown with other grasses, and does well with Crested Dogstail and Sweet Vernal. It should be included in all permanent pasture mixtures for light, dry and calcareous soils. It is highly relished by cattle; comes very early and makes a very sweet hay, after which a large aftermath is produced. Sow (if alone) 3 bushels per acre; weight about 7 lbs. per bushel. Price, $1.00 per lb.; $6.75 per bushel; $90.00 per 100 lbs.

Your Special Mixture of Grasses for Permanent Pasture has given entire satisfaction. *No more Timothy for me.*—CHARLES EVERDING, Branford, Conn.

Drought-Resisting Grasses.

AWNLESS BROME GRASS. (*Bromus Inermis.*)

When we introduced and offered seed of this grass in 1889, our experimental experience with it enabled us to claim for it **drought-resisting qualities** which have since been amply proven. In addition to this quality, we now claim for it **extreme hardiness**, it having stood uninjured the severe winters of Northern Canada with the snow covering purposely removed to test its hardiness. It is now extensively grown throughout all parts of Canada and the United States, and wherever known it is much appreciated both for hay and pasture. With the possible exception of Florida, it thrives throughout the United States.

It will grow on lands too poor for nearly all other valued grasses, and under climatic conditions which would render impossible the cultivation of nearly all other varieties, though of course it will not produce so abundantly. The following extracts from reports give some idea of its wide geographical value:

James Fletcher, of Canadian Experimental Farms, in his evidence before Agricultural Committee of the Canadian Parliament, said:

"Of all the imported grasses this is undoubtedly the most valuable. It grows a heavy crop four feet high. It is the one grass above all others reported upon favorably and uniformly from the North West Territories. I sent out over 2,000 packets of seed for testing, and it was spoken of most highly by every person who sent in a report. These reports show that it is of value in the West, and the experience of it in Ontario, Quebec and the Maritime Provinces is no less favorable. It is an extremely heavy and uniform cropper."

Bulletin, Department of Agriculture, Washington, D. C., says:

"This grass certainly presents a fine appearance, and the Experiment Station reports, nearly without exception, praise it in the highest terms. It is evident from these reports that the grass is little influenced by changes of climate. In Canada, in Mississippi, Kansas, Colorado, Wyoming and California it seems to do equally well. It is resistant to intense cold, to sudden and extreme changes of temperature, and stands protracted drought better than any other variety."

Bulletin, Mississippi Experiment Station, says:

"Endures our summer heat and drought much better than Rescue Grass, and, being a perennial, is much more permanent. It remains fresh and green during a larger part of the year than any other grass we have."

Bulletin, United States Grass Experiment Station, Garden City, Kan., says:

"Bromus Inermis is the grass for this Western country; it is the best out of seven or eight hundred varieties tried on this Station."

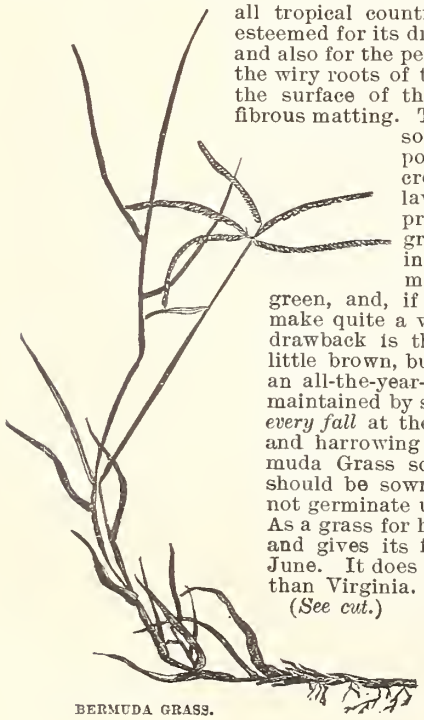
Sow 35 lbs. per acre. (*See cut.*)

Price, 20 cts. per lb., $2.60 per bushel (of 14 lbs.), $16.00 per 100 lbs.

AWNLESS BROME GRASS (*Bromus inermis*).

BERMUDA GRASS. (*Cynodon Dactylon.*)

This is a grass that is eminently adapted for the Southern States, as it withstands drought and the scorching rays of the sun better than any other variety. In all tropical countries this grass is highly esteemed for its drought-resisting qualities, and also for the peculiar habit of its growth; the wiry roots of the grass in running over the surface of the ground form a strong, fibrous matting. This has caused it to be sown largely for the purpose of binding banks of creeks and dams, etc. For lawns it is also highly prized, as while all other grasses are burned up during the hot season, Bermuda Grass will remain green, and, if regularly mown, it will make quite a velvety carpet. The only drawback is that in winter it looks a little brown, but in the Southern States an all-the-year-round *green* lawn can be maintained by sowing English Rye Grass *every fall* at the rate of 50 lbs. per acre and harrowing or raking into the Bermuda Grass sod. Bermuda Grass seed should be sown in the spring, as it will not germinate until warm weather comes. As a grass for hay or pasture, it matures and gives its first cutting ordinarily in June. It does not succeed further north than Virginia. Sow 8 lbs. per acre. (*See cut.*)



BERMUDA GRASS.

Price of Seed, 80 cts. per lb.; 100 lbs., 70 cts. per lb.

JOHNSON GRASS. (*Sorghum Halapense.*)

As a meadow or hay grass, this variety is highly esteemed in the South, where during the hottest and driest seasons it can be relied upon to yield heavily. The aggressiveness of this grass has caused it to be considered a veritable curse by some farmers by spreading into cultivated fields, but it is highly esteemed by those who understand it. Where it is desired to keep it within bounds, the seed should never be allowed to ripen, as it spreads from the seeds disseminated through hay much more than is generally supposed. Besides, when fully ripe, the feeding value is little better than corn stalks, but, cut before the seed tops emerge from the sheaths, its value as shown by chemical analysis is better than Timothy hay. When cut at time recommended, the embryo seeds are unpollenized and imperfect, and are incapable of sprouting, so there is no possibility of introducing this grass where it is not wanted by using such hay. We only advise the sowing of Johnson Grass where it is desired to remain as permanent meadow. Should be sown August to October, or in spring, at the rate of one bushel per acre.

Price, 18 cts. per lb., $4.00 per bushel of 25 lbs., $14.00 per 100 lbs.

TEXAS BLUE GRASS. (*Poa Arachnifera.*)

A perennial creeping grass, closely related to Kentucky Blue Grass, but stands drought and heat better, and is, therefore, of greater value in the Southern States as a winter pasture or Lawn Grass. An all-the-year-round green pasture or lawn can be maintained, even in the extreme South, by sowing half each Bermuda and Texas Blue Grass, neither seeming to crowd out the other, Texas Blue being one of the few grasses able to withstand the aggressive habit of Bermuda. Sow during showery weather in spring or fall, preferably in the fall. Parties ordering should be careful to state **Texas** Blue Grass, so as not to confound it with **Kentucky** Blue Grass.

Price, 20 cts. per packet, 40 cts. per oz., $1.00 per ¼ lb., $3.00 per lb.

CLOVERS.

Clovers are one of the most important factors to success in agriculture. They exhaust the soil less than any other class of plants giving equal bulk; they derive nitrogen (the most costly element in fertilizers) from the atmosphere, and actually add to the fertility of the land. Clovers are of the greatest value for plowing under for supplying humus and nitrogen.

RED CLOVER. (*Common or Medium Clover, June Clover.*)

Botanical, *Trifolium pratense.* German, *Kopfklee, roth bluhender.* French, *Trefle rouge.*

This is by far the most important Clover for practical agriculture. It grows luxuriantly in stiff loams, and is fond of lime, though it adapts itself to a variety of soils. In the Northern States it is generally sown in the spring, and in a short time yields abundantly. Sow (if alone) 12 to 14 lbs. per acre. If sown in spring after Timothy, 8 to 10 lbs. per acre. **CAUTION.**—*Every care should be exercised in buying Red Clover, for there are always on the market at a cheap price large quantities, badly infested with weed seeds, which in size and appearance closely resemble Red Clover, and cannot be cleaned out. Our seed is of high germination, pure and free from weed seeds and foreign matter.* Price (subject to change without notice) **Henderson's Standard Sample** (extra recleaned), 16c. lb., $9.00 bush. of 60 lbs., $15.00 per 100 lbs.

"The Clover I bought from you last spring is the best they have had on that farm in twenty years, so I am told by the family that occupied it for sixty-five years."
THOMAS SKIPPER, Woonsocket, R. I.

MAMMOTH OR PEA VINE RED CLOVER.
(*Perennial Red Clover, Cow Grass.*)

Botanical, *Trifolium pratense perenne.* German, *Bullenklee.* French, *Trefle vivace d'Angleterre.*
Perennial. Time of flowering, July. Height, 3 to 5 ft.

Quite distinct from the common Red Clover, and valuable for purposes for which the latter is entirely unsuited. It lasts longer and is two or three weeks later than common Red Clover. Of very robust growth, yielding enormous bulk, valuable for reclaiming exhausted lands. Sow (if alone) about 12 lbs. per acre; weight, 60 lbs. per bushel. **Henderson's Standard Sample** (extra recleaned) (*see cut*), 18c. per lb., $10.00 per bushel, $16.00 per 100 lbs.

COW GRASS, MAMMOTH OR PEA VINE CLOVER.

MEDIUM RED CLOVER.

ALSIKE CLOVER.

ALSIKE OR HYBRID CLOVER.
(*Swedish Clover.*)

Botanical, *Trifolium hybridum.* German, *Bastard Klee.* French, *Trefle hybride.*
Perennial. Time of flowering, July and August.

This is one of the hardiest of all the Clovers. It succeeds on any soil, and resists extremes of drought and wet. It yields enormously, and can be cut several times in a season; is very nutritious, and is good for either green food, pasturing or cured for hay. It is valuable for sowing with other grasses and clovers, as it forms a thick bottom, and increases the yield of hay. Alsike Clover frequently produces heavy crops on soils on which Red Clover will not grow. We strongly advise farmers to add 2 or 3 lbs. per acre to their usual seeding of Red Clover with Timothy. Sow (if alone) 8 lbs. per acre; weight, 60 lbs. per bushel. (*See cut.*) 25c. lb., $13.75 bushel, $22.00 per 100 lbs.

WHITE CLOVER. (*Dutch or Honeysuckle Clover.*)

Botanical, *Trifolium repens.* German, *Weissklee.* French, *Trefle blanc.*
Perennial. Time of flowering, May to September. Height, 6 inches (creeping).

A very hardy creeping variety, which accommodates itself to a great variety of soils, but grows most luxuriantly in moist ground or in wet seasons. It is valuable in mixtures for permanent pastures and lawns, and also prevents the soils from being washed by heavy rains. Sow (if alone) 8 lbs. per acre; weight, per bushel, 60 lbs. (*See cut.*) 30c. per lb., $17.50 per bushel, $28.00 per 100 lbs.

JAPAN CLOVER.
(*Lespedeza striata.*)

Is not a true Clover, but in appearance and habit of growth is much like White Clover. It is especially valuable in the Southern States, where it will flourish on poor and exhausted soils, too poor to produce profitable crops of any other forage plant. It is an annual, but once sown it reseeds itself from year to year, and in that way will last indefinitely, and is pronounced by competent authorities as the best pasture plant for impoverished soil in the Southern States. Sow 14 lbs. per acre; weight, 20 lbs. per bushel; 30c. per lb., $5.50 bushel of 20 lbs., $25.00 per 100 lbs.

WHITE CLOVER.

WHITE BOKHARA CLOVER. (*Sweet Clover.*)

Botanical, *Melilotus alba.* German, *Wunderklee.* French, *Trefle de Bokhara.*
Biennial. Time of flowering, June to September. Height, 2 to 4 feet.

This is a tall, shrubby plant, bearing quantities of small white flowers of delicious fragrance, and is exceedingly valuable for bees, and is also of great value to plow under as a fertilizer. Sow 10 lbs. per acre. 25c. per lb., $13.75 per bushel, $22.00 per 100 lbs.

ALFALFA OR LUCERN.

(*Medicago Sativa.*)

The Deepest Rooting, Soiling and Hay Plant Grown.
Opens up the Subsoil. Adds Nitrogen and Humus to the Land.

YIELD.—When fully established it yields as much as eight to twelve, and sometimes as high as sixteen, tons of cured hay per acre at three to four cuttings each year. The hay is palatable and very nutritious.

By the New Jersey Experiment Station and other competent authorities the feeding value of the hay is placed at $20.00 as compared with Timothy at $12.00 per ton. As a soiling plant for cutting and feeding green during the summer it is of the utmost value on all dairy farms, as it is ready for first cutting about the time for planting Corn and about as early as green Rye can be cut, and is ready for cutting about every six weeks thereafter. **Alfalfa should be cut every time it begins to blossom, whether the growth is short or tall, for if allowed to form seed, it shortens the life of the plant.**

Owing to slow growth the first season, almost the entire growth going to roots, the land should be clean and free from weeds, and it is, therefore, best to follow Potatoes, Corn or some other crop that has been thoroughly hoed and kept free from weeds.

DEEP ROOTING.—Its drought-resisting qualities are remarkable, rendered so by the wonderful root formation, THE ROOTS GOING DOWN DEEPER THAN ANY OTHER PLANT, eight to twelve feet being usual, and a depth of thirty feet has been reported. This deep-rooting quality enables it to reach and utilize plant food beyond the reach of other plants.

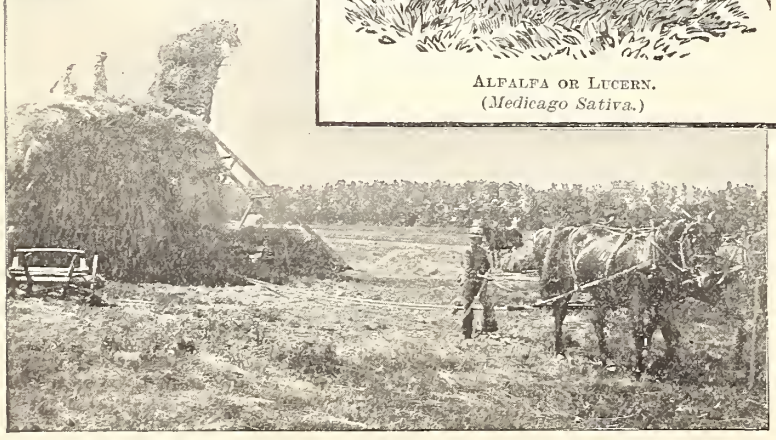
There is no plant which can be fed green or cured into hay that is deserving of wider cultivation than Alfalfa, and *there is no State in the Union where it cannot be successfully cultivated under the following conditions:*

LIME NECESSARY.—One of the essentials for its success is LIME in some form, either in the soil or subsoil, and if lime or marl is present, profitable crops may be expected. Therefore, if it is known that there is no lime in the soil, it should be applied as a top-dressing when the land is being plowed preparatory to sowing the seed.

GOOD DRAINAGE is necessary, for an excess of surface water soon rots the roots and under these conditions the plants seldom live longer than one or two years, though excellent results have been obtained on clay soils, provided always that lime is in the soil or subsoil, either naturally or applied.

TIME OF SOWING.—The best time to sow in this section is in April, and if the land is thoroughly clean and free from weeds, it may be sown broadcast, using 20 lbs. per acre, and such weeds as appear kept down by the mowing machine with the cutter bar raised so as to avoid cutting near the crowns of the young plants. *But, even under the most favorable conditions the better plan is to drill the seed in rows 16 inches to 2 feet apart, at the rate of 15 to 20 lbs. per acre.* As soon as the young plants are high enough to mark the rows, cultivation should begin, and if the soil is kept clean and mellow by frequent stirrings, the Alfalfa, if cut often and not allowed to go to seed, will after the first year cover the ground and easily keep ahead of all weeds. **20c. lb.; $11.50 bushel of 60 lbs.; $18.00 per 100 lbs.**

ALFALFA OR LUCERN.
(*Medicago Sativa.*)



Crimson or Scarlet CLOVER

(*Trifolium Incarnatum.*)

THE MOST VALUABLE PLANT FOR RESTORING THE FERTILITY OF WORN-OUT SOILS.

THE value of Scarlet Clover is now so thoroughly established that we have no hesitation in recommending that all lands from which crops have been harvested during the summer and fall should be sown with Scarlet Clover for plowing under the following spring. Authorities who have made a careful estimate state that plowing under a good crop of Scarlet Clover is equivalent to 20 tons of stable manure per acre, and even if the clover be harvested or pastured, the benefits derived from the wonderful nitrogenous root formation will alone many times repay the cost.

If intended for feeding, it should always be cut while in the young stage and never fed to stock after the crop has ceased flowering, as serious results are apt to follow the feeding of over-ripe Crimson Clover. It is the cheapest source of nitrogen and should be extensively used throughout the entire Eastern States. Its value as a winter soil mulch and for green manuring for orchards cannot be overestimated.

In the latitude of New York, time for sowing may extend from July 15th to September 15th, and further South up to October. The seed needs to be only lightly covered, and a good plan is to sow on fresh plowing and cover with a light harrow. Sow 15 lbs. per acre.

Choice new crop seed of highest growing quality, thoroughly recleaned and free from weed seeds, 10c. lb., $4.25 bush., $6.75 per 100 lbs.

LONG'S WHITE TARTAR OATS.

The IDEAL OAT for the AMERICAN FARMER.

VERY EARLY.
VIGOROUS CONSTITUTION.
IMMENSE YIELDER.

THIS grand oat, which we catalogue for the first time, was grown and selected by that eminent agriculturist, Mr. I. S. Long of Lebanon County, Pa., from a sample of White Tartarian which we imported. It is suitable for all soils, of robust and vigorous constitution, is remarkably early and an immense cropper, the straw is long and stout, and, as a consequence, stands up well and does not readily lodge or twist. The heads are very long, measuring from 8 to 10½ inches, and the kernels are of immense size, thick, plump and heavy. It has already proven its superiority, and is undoubtedly the heaviest cropping domestic white oat ever offered. Planted alongside some of the older varieties in a field of 40 acres on Mr. Long's farm, it yielded more than double the number of bushels per acre of any of the other sorts.

Its extreme earliness, great length and strength of straw, thick, plump grains and the heavy yields it is capable of producing gives Long's White Tartar all the necessary qualifications which go to make an ideal oat.

FROM THE ***AMERICAN AGRICULTURIST***

FEBRUARY 14th, 1903.

PROMISING NEW OATS.

Recently while on the farm of I. S. Long in Lebanon County, Pa., the editor saw one of the largest and most promising varieties of oats that has been introduced into this country. It was imported in 1901 for Mr. Long and he grew about 40 acres the past season. When growing, it attracted a great deal of attention in his neighborhood, and farmers from all over the community came to see the field. It not only has long, strong and vigorous straw, but stands erect and lodged less this season than any other variety in the neighborhood. The yield was quite uniform and ran about 125 bushels per acre in the best portions of the field.

The kernels are long, thick and perfect. Several heads picked without special selection from a bunch brought to the office of *American Agriculturist* measured 8½ to 10½ inches long. When threshed, it came out of the spout at the rate of two bags per minute, or an equivalent of nearly five bushels, at the ordinary run of the thresher.

This new variety planted in the same field with some of the older kinds, not only retained its weight, but produced more than double in quantity of any others. He seeded about three bushels per acre. It was sown broadcast, but he is not an advocate of sowing oats broadcast and thinks he would have had better success if he had drilled them. The illustration reproduced herewith shows an average bunch of these oats, which gives a fairly good idea not only of the size of the straw, but of the immense heads. Two of the straws in our office were 4 feet long, and some of those in the sheaf standing beside Mr. Long exceeded this length.

Price, 75c. peck, $2.00 bu. (32 lbs.); 10-bu. lots, $1.85 bu.; 50-bu. lots, $1.75 bu.; 100-bu. lots, $1.65 bu.

We shall be pleased to make Special Prices where possible to buyers of large quantities of Grain or Grass Seed. Write us.

HENDERSON'S IMPORTED CLYDESDALE OATS

A VARIETY OF WHITE OATS OF EXTRAORDINARY WEIGHT, EARLINESS AND PRODUCTIVENESS,

The Natural Weight of which is 50 pounds to the Bushel.

Since we introduced this Grand Oat it has steadily and deservedly gained in popularity, until to-day it is **THE MOST POPULAR HIGH-GRADE WHITE OAT IN THE UNITED STATES.**

The climate of America is unsuited to the production and maintenance of the highest grade of oats, and unless a heavy imported oat be used for seed purposes at least every second or third year, they become light, "chaffy," inferior in quality and unprofitable. The ultimate financial benefit accruing to the American farmers by the annual distribution of several thousand bushels of **HENDERSON'S CLYDESDALE OATS** cannot be overestimated. These oats **weigh naturally 50 lbs. per measured bushel,** and they deteriorate in weight only from three to four lbs. each year they are grown here, so that the produce is worth for seed purposes at least double the market value of ordinary oats. We offer these oats for sale at the **weight of 50 lbs. per bushel,** exactly as grown for us in Britain, so that those purchasing will actually receive for every bushel **over one and one-half bushels** according to the American standard, which reduces the price of **"The Clydesdale" to $1.44 per standard bushel of 32 lbs.** Another most important advantage of **Henderson's Clydesdale Oats** to the farmer is the fact that they have been thoroughly cleaned by our most improved machinery, and are absolutely free from foreign and weed seeds. (*See cut.*) **Price,** by express or freight, **$1.00 per peck; $2.50 per bushel (of 50 lbs.)** Or we will supply **3 bushels (150 lbs.), the quantity to seed an acre, for $7.00. 10 bushels and upwards, $2.25 per bushel; 100-bushel lots, $2.15 per bushel.**

Henderson's Imported Clydesdale Oats Are Genuine Only When Direct From Us.

In the "Ohio Farmer," Mr. J. T. Hickman, of the Ohio Agricultural Experiment Station, states that samples of Henderson's Clydesdale Oats and Clydesdale Oats procured from other sources have shown, in a series of experiments, in favor of Henderson's Clydesdale. He also states that the average yield of Clydesdale Oats procured from other sources was something like nine bushels per acre below the results obtained from Henderson's Clydesdale.

What Our Customers Think Of HENDERSON'S IMPORTED CLYDESDALE OATS.

"We got one bushel of Clydesdale Oats from your house four years ago. We have been very successful with them; we now raise no other kind. We had about 1,100 bushels of them this year, but wish to renew the seed."
WILLIAM ARCHER, Brier Hill, New York.

"Last spring I sowed 100 pounds of your celebrated Clydesdale Oats on 1¾ acres of ground and have just thrashed 170 bushels of the finest oats ever seen in this part of the country. I write you this statement to acknowledge the great benefit you have bestowed on the grain-growing sections of our country by furnishing such seed."
ROBERT WOLF, Canvas Prairie, I. T.

"The one pound of Clydesdale Oats I bought of you thrashed 222 pounds of the finest oats I ever saw. They weighed 50 pounds to the bushel."
WM. HEMSTOCK, McMinnville, Oregon.

"Your Clydesdale Oats are the grandest oats I have ever seen in all my life." *JAMES WILLIS, Farrington, Va.*

"The imported Clydesdale Oats I bought of you are incomparably good. Such vigorous-growing oats I never saw."
W. W. NEWSON, Fort Worth, Texas.

AMERICAN GROWN... CLYDESDALE OATS

(Grown in Northern New York.)

In order to give Henderson's Clydesdale a still wider distribution and make their value universally known, and to enable us to offer them at **a price within the reach of every farmer,** we have had several thousand bushels specially grown for us in the United States during the past year. These we have thoroughly recleaned, and are extra choice and heavy, free from all foul seeds and light and imperfect grains. We are within the mark when we say these oats will yield under ordinary cultivation 70 to 80 bushels per acre, and under favorable circumstances 100 bushels per acre can reasonably be expected. **$1.35 bushel (32 lbs.); 10-bushel lots, $1.30 bushel; 100-bushel lots, $1.25 bushel.**

We shall be pleased to make Special Prices (where possible) to buyers of large quantities of Grain or Grass Seed. Write us.

HENDERSON'S SUPERIOR . . SEED OATS.

PROBSTEIER OATS.

ESPECIALLY GROWN FROM SELECTED STOCK FOR SEED PURPOSES. RECLEANED BY THE MOST IMPROVED MACHINERY, FREE FROM WEED SEEDS, SMALL AND IMPERFECT GRAINS.

***IMPORTANT.**—A change of Seed Oats is even more necessary than a change of Seed Potatoes, and they should be renewed at least every second or third year. At the low prices at which we offer below choice recleaned Seed Oats, IT WILL PAY EVERY TIME to even renew stock every year. Oats grown on the same soil or in the same neighborhood year after year deteriorate rapidly and soon become light, chaffy and unprofitable.*

LINCOLN. On its merits this has become one of the most popular. Is very strong-strawed, is very early, and is more nearly rust-proof than any other variety. The grain is heavy, handsome, and thin skinned. You cannot go wrong in sowing this variety. **$1.10 bushel (32 lbs.); 10 bushels and upward, $1.05 bushel; 100 bushels and upward, $1.00 bushel.**

PROBSTEIER. A leading white variety. It is very productive and heavy, and straw very strong. It is of Scandinavian origin, but well adapted to this climate; it ripens two or three days later than many varieties, but yields better. (*See cut.*) **$1.00 bushel (32 lbs.); 10 bushels and upward, 95c. bushel; 100 bushels and upward, 90c. bushel.**

SILVER-WHITE MAINE. A grand oat of vigorous habit of growth and seems to thrive better under hot, dry and other unfavorable weather conditions than most other varieties. **$1.10 bushel (32 lbs.); 10 bushels and upward, $1.05 bushel; 100 bushels and upward, $1.00 bushel.**

WHITE RUSSIAN. Is somewhat coarse, but is much appreciated for its rugged hardiness. It stools freely, has strong, stiff straw, heads large with plump grain. A heavy cropper. It is a side oat, all the grain being borne on one side. **$1.10 bushel (32 lbs.); 10 bushels and upward, $1.05 bushel; 100 bushels and upward, $1.00 bushel.**

BLACK TARTARIAN. The most prolific and distinct variety of Black Oat grown. Its ear is carried all on one side; it is very early, long and strong-strawed, and bears a short, plump grain. **40c. peck, $1.30 bushel (32 lbs.); 10 bushels and upward, $1.25 bushel; 100 bushels and upward, $1.20 bushel.**

HENDERSON'S SUPERIOR WINTER OATS.

WINTER or TURF OATS are quite extensively grown in the Southern States, where they are in high favor. Sown in the fall they either afford excellent pasturage during the winter or give abundant yield the following season. The demand for oats of this character has been gradually extending northward, and to meet it we have been growing in Northern Pennsylvania, for several years, an acclimatized strain which is remarkably hardy and will stand the winter as far north as New Jersey. They are incomparably superior to the Winter or Turf Oats of Virginia; they stool out strongly, are earlier, more vigorous and less susceptible to rust; they have stiff straw, stand up well, and are much more productive than Spring Oats. Sow in September, at the rate of 1½ bushels per acre, and sow deep. They will stand much more severe weather when planted four inches deep than near the surface. (*See cut.*) 40c. peck, $1.15 bushel (32 lbs.); 10-bushel lots and upwards, $1.10 bushel.

HENDERSON'S SUPERIOR SPRING SEED WHEAT.

The prices herein named are those ruling at this date (February, 1903) for the crop of 1902, but they are subject to market fluctuations. Delivery f. o. b. New York, bags extra. Special quotations to large buyers.

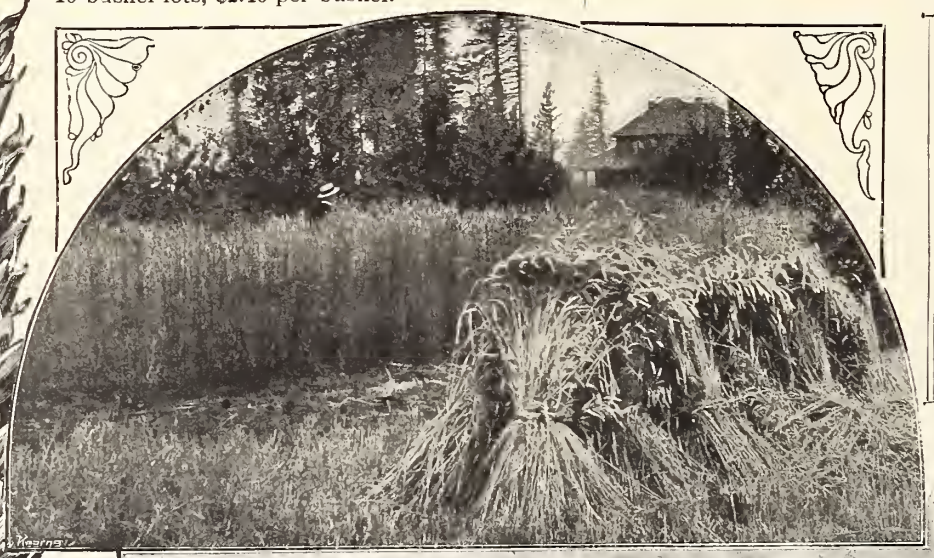
Often, through pressure of other work, the seeding of Winter Wheat is neglected until too late and is either not sown at all or results in failure. With the two varieties of Spring Wheat here offered, this difficulty can be overcome by Spring sowing. They are the best of the Spring Wheats, yield well, and the milling quality of the grain surpasses even the best of the winter varieties. Spring wheat is also a satisfactory crop to sow along with grass seed.

WELLMAN FIFE.

The best of all the Spring Wheats, having large heads and grain, and tall, strong straw, with white chaff heads and dark amber kernels. The grain is very hard and produces the finest grade of flour, and is eagerly sought after by millers. Enormously productive, and is invaluable for spring sowing where the Winter Wheat has been killed, or where it was not sown. (*See cut.*) $2.25 per bushel (60 lbs.); 10-bushel lots, $2.10 per bushel.

SASKATCHEWAN FIFE.

The favorite variety in the great Spring Wheat sections of the Northwest, where it is much esteemed by the farmer for its earliness, productiveness, vigorous growth and freedom from smut and diseases, and by the miller on account of its unsurpassed milling qualities. $2.10 per bushel (60 lbs.); 10-bushel lots, $2.00 per bushel.



"Last spring I purchased one quart of the Saskatchewan Fife Spring Wheat. I sowed the same on five square rods of land where one crop had been grown before. I threshed four bushels and forty-four pounds of very fine wheat, weighing sixty-five pounds to the bushel. I found some stools that contained as many as eighty stalks of bearing size from one kernel. Most of the stools contained from forty to fifty stalks. That was more than I expected to raise, more than ever was raised, and I think more than ever will be raised again from a like amount of seed. I am sure when every farmer will start to raise it, it will be a great thing for the country."

—J. W. NOOTNY, Angus, Minn.

MAY WE NOT BOOK YOUR ORDER NOW

For HENDERSON'S SUPERIOR Winter Seed Wheat FOR NEXT FALL'S SOWING?

DESCRIBED ON FOLLOWING PAGES, 21 TO 24.

To be shipped from new 1903 Harvest as soon as ready next Autumn—crops permitting. We will give you the benefit of our lowest prices on the varieties ordered—ruling at time of shipment.

It is an advantage to make plans and order the Seed before sowing season, for during the press of summer work, it is apt to be put off until too late for best results.

HENDERSON'S SUPERIOR WINTER SEED WHEAT.

Prices are subject to the fluctuations of the market. The prices herein named are those ruling Spring, 1903. Delivery f. o. b. New York, bags extra.

Henderson's Superior . . Seed Wheat is grown from pedigree races.

PROPER Selection of Seed Wheat, as well as Proper Cultivation, are essential in securing highest results, for, like any other product, it is the poor article that brings the poor returns, while there is always a market for the superior product at remunerative prices. It costs almost as much to lay down an acre of wheat that yields only 15 bushels per acre as one that will yield from 35 to 50 bushels—the first scarcely returns the cost of the investment, while the latter yields a handsome profit, and the leading essential needed to attain such results is to use superior seed. The "running out" of certain varieties of wheat is considered by experts as due to the improper selection of wheat intended for seed purposes, for wheat is such a strictly self-pollenizing plant that unless cross-pollination is practiced occasionally even between plants of the same variety, and intelligent selection made of the ideal plants, there is a tendency towards loss of vigor and eventually it "runs out."

"It is noteworthy that in this country the wheat hybrids thus far produced, which have given valuable results, are racial hybrids, in many cases very complex, including several different races." —*Year Book U. S. Dept. of Agriculture.*

Most of the new varieties of **HENDERSON'S SUPERIOR WHEATS** that we offer in this catalogue are the offspring from cross-bred combinations of meritorious Russian and American races, with some blood from the Mediterranean long berry. This is the blood that was utilized in producing the widely-grown Winter Fife, Early Red Clawson, Early Genesee Giant, and other well-known varieties, so that it may confidently be expected that the later, carefully-bred sorts now offered will show remarkable improvement in all desirable qualities, including yield, gluten, milling qualities, hardiness, health, vigor, etc. **HENDERSON'S SUPERIOR SEED WHEAT** is not only grown especially for seed purposes from choicest selected cross-bred and pedigree strains, but it is all recleaned at our warehouses (250,000 bushels capacity), which are equipped with the most modern seed-cleaning machinery in America. This enables us to supply direct to the farmer plump and heavy seed, of undoubted superiority, at lowest possible prices, where quality is considered.

TWO GRAND NEW WINTER WHEATS FOR 1903.

Silver Sheaf Longberry Red.

The most perfect Longberry Red Wheat grown. It will prove to be the finest Longberry Red ever known, and will make a sensation among wheat growers and millers as soon as known. This marvel originated from a cross between the well-known American Bronze and a cross from Lancaster and a seedling Longberry. It is one of the hardiest of all wheats, a strong, healthy grower and can be sown very late. If sown early, 1¼ bushels of seed per acre will be enough on strong soil. Straw of light yellow color, medium tall, thick-walled and strong; head long, wide and full; chaff thin and silvery white; grain large, dark and flinty, and nearly as long as rye kernels. It will command the highest market price of any Longberry yet grown, and will be the leading fancy milling wheat of this country. Price, $2.00 per peck, $3.00 per half-bushel.

Early Red Chief (Beardless).

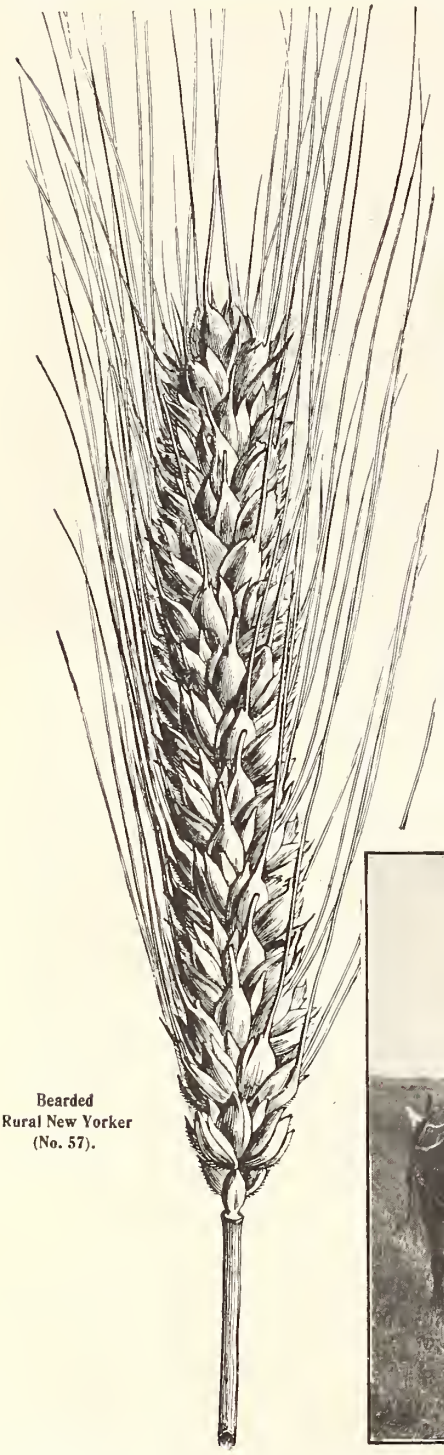
We herewith introduce a very superior new wheat, for which we predict a grand future. It originated from Early Red Clawson and Red Arcadian. Without doubt, Early Red Chief will prove a wonder in the wheat line, being a rough-and-ready sort that can be depended upon for a granary filler even in unfavorable seasons. It is one of the strongest-growing and productive sorts yet introduced; its growth in the fall is strong, foliage large, thick and dark, covering the ground early in the season, and can be sown very late. It is one of the first to start in spring. Straw exceptionally thick-walled; strong heads, long and wide, carried erect, of a reddish brown shade, completely packed with large, dark red kernels. Price, $1.50 per peck, $4.50 per bushel.

Two Grand WINTER WHEATS

RURAL NEW YORKER

Bearded ..AND.. Beardless.

THESE are both the result of upwards of twenty years' thoroughly scientific crossing and careful selection at the hands of the late Mr. E. S. Carman, the well-known editor of the *Rural New Yorker*, and raiser of many of the most valuable agricultural introductions of recent years. These two varieties have been selected from hundreds of crosses and varieties as superior in all desirable qualities. They have now been grown in most wheat-growing sections, and most flattering testimony has been received by us regarding their merits.



Bearded Rural New Yorker (No. 57).

"Bearded" Rural New Yorker

(*Number 57*)

has heavily-bearded heads which are beautifully symmetrical, being pointed at the tip, broad in the middle, and tapering towards the stem. The straw is unusually tall and strong and stools freely, frequently having 35 to 40 stalks from a single grain. The heads are compact, averaging three kernels to a spikelet or "breast," and ten breasts to a side. The kernels are of medium size and of an attractive color, between the so-called "red" and amber, possessing the requisite degree of hardness for the production of the finest grade of flour, and is much sought after by millers. The chaff is clear white, with a trace of velvet sufficient to make it difficult for the green fly to attack it, and the heads do not mildew as the full velvet chaff varieties are liable to do. (*See cut.*) 75c. per peck, $2.25 per bushel; 10-bushel lots, $2.00 per bushel.

"Beardless" Rural New Yorker

(*Number 6*)

This beardless variety is a hybrid between Rye and Armstrong Wheat, though all traces of Rye have disappeared and it now appears a handsome, beardless Wheat. **It succeeds and produces heavy crops on poor, thin land, where Wheat could not be successfully or profitably grown, and it also has extreme hardiness to recommend it.** When first raised, some years ago, the top of the culms was downy with Rye culms. This characteristic could not be fixed, so that for this variety the culms having no down were alone selected. The gold-colored straw is very thick and strong, easily supporting the heavy grain without breaking. The large amber kernels are placed four to a breast, eight breasts to a side, with long symmetrical heads having a brown chaff. (*See cut.*) One of our growers says:

"It stools as strong as any wheat I ever saw. It had a vigorous, healthy growth all the season, and stood well without lodging. It is very hardy."

75c. per peck, $2.25 per bushel; 10-bushel lots, $2.00 per bushel.

Beardless Rural New Yorker (No. 6).

LET US BOOK YOUR ORDER NOW {FOR SOME OF HENDERSON'S SUPERIOR} **WINTER SEED WHEAT** {FOR NEXT FALL'S SOWING

TO BE SHIPPED—CROPS PERMITTING—FROM 1903 CROPS AS SOON AS READY—AT OUR LOWEST PRICES AT TIME OF SHIPMENT.

Jones' Bearded Longberry. (No. 1.)

Clawson Longberry.

WE are confident that this variety will prove to be the most profitable Longberry yet known—it is the result of experiments in crossing this type covering several years—and we feel that it will rapidly displace the old Longberries now no longer profitable on account of weak vitality and light yield, although their quality is the standard by which all other sorts are judged. JONES' BEARDED LONGBERRY (No. 1) is a grand variety and one of the most productive, hardy and profitable sorts ever sent out. It has made a record of 54½ bushels per acre. It has a sturdy, wiry straw of good length, not liable to lodge even on very fertile soil; heads long, wide and exceptionally well filled, bearded and of a rich brown shade; kernels large and long, of an attractive blending of red and amber, indicating to millers its high milling character and requisite hardness for producing a fine grade of flour. Especially adapted for late sowing, giving large yields when sown in October. (*See cut.*)

75c. per peck, $2.25 per bushel; 10-bushel lots, $2.00 per bushel.

Pride of Genesee (Bearded).

One of the most productive varieties, having a long, well-filled head, and the fact that it will give a reasonably good crop on land so poor that common sorts would be a failure, cannot fail to make it a popular sort, as the head does not decrease in proportion to the straw, being large and well filled on a very short, light growth of straw.

75c. per peck, $2.25 per bushel; 10-bushel lots, $2.00 per bushel.

Jones' Bearded Longberry (No. 1).

Clawson Longberry (Beardless).

This grand cross-bred Longberry was produced from the same blood that bore the famous Red Clawson crossed with Longberry stock. It resembles, in some respects, Red Clawson in the field, but is a stronger grower and more prolific stooler, and has sturdy, wiry straw. Heads long, wide and full; chaff, brown and free from beards; grain, dark amber of the finest quality, large, long, and of true Longberry type. Like its parents, it delights in strong clay loam, and on such soil, with thorough preparation, it will often yield fifty bushels or more per acre. It is largely grown by some of the best wheat growers, by whom it is highly recommended. (*See cut.*) Sow 1½ bushels per acre.

75c. per peck, $2.25 per bushel; 10-bushel lots, $2.00 per bushel.

Diamond Grit or Winter Saskatchewan

(Bearded).

A worthy rival to the hard spring wheats. It is superior to every known winter wheat for milling, with the added advantage of making more and finer flour per bushel than any other sort. It is wonderfully productive, of medium height, and of strong, wiry growth; is extremely hardy and very early. The heads, of medium length, are closely set with grain, 4 and 5 kernels abreast—in fact, the head is nearly all grain, of dark red color, short, plump, and weighing 64 lbs. to the measured bushel. This wheat adapts itself to all soils, and has a promising future. (*See cut.*)

75c. per peck, $2.00 per bushel; 10-bushel lots, $1.85 per bushel.

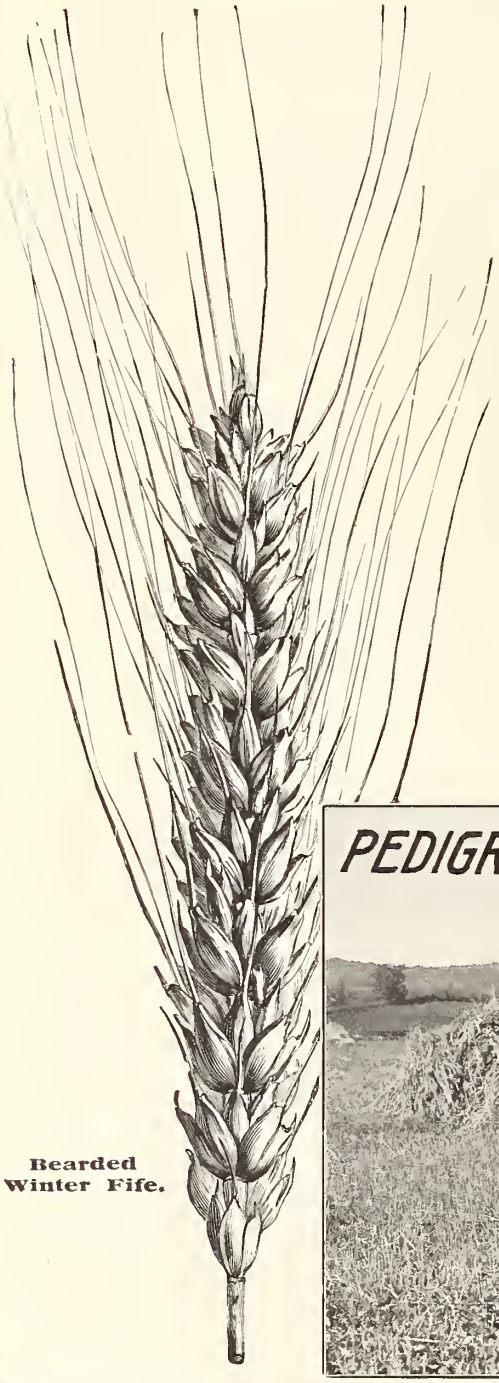
LET US BOOK YOUR ORDER NOW { FOR SOME OF HENDERSON'S SUPERIOR } **WINTER SEED WHEAT** { FOR NEXT FALL'S SOWING

TO BE SHIPPED—CROPS PERMITTING—FROM 1903 CROPS AS SOON AS READY—AT OUR LOWEST PRICES AT TIME OF SHIPMENT.

Bearded Winter Fife.

A GRAND Wheat, the progeny of the celebrated Winter Fife crossed with two excellent seedlings. It retains all of the good qualities of the parents, marking a steady advance over the latter in quality, productiveness and the flinty character of the grain. It is without doubt the hardest of all wheats grown. In milling qualities it is superior, containing sufficient gluten for making quick-raising flour of chalk-like whiteness and light bread. It is one of the earliest wheats, ripening with the Early Red Clawson; a strong, healthy grower, stooling rapidly in the fall; starts early in the spring, and is one of the first to head. Straw a little above medium height, strong and wiry; heads very long, wide and well filled; chaff white and bearded; grain medium long, plump and of clear amber shade; bran exceptionally thin, hence will make more flour than most any sort grown. It is one of the heaviest-weighing sorts. It took the first place at the Kentucky Experiment Station over 17 other varieties grown under same conditions. (*See cut.*) 75c. per peck, $2.00 per bush.; 10-bushel lots, $1.85 per bush.

Gold Coin.



Bearded Winter Fife.

Fortyfold (Beardless.)

First brought to our notice by one of the largest wheat growers of Pennsylvania, who claimed it to be the best yielder among all the varieties he has grown. It is of very vigorous growth, remarkably hardy and stands severe winters and dry weather better than any other variety. It has a very stiff straw and a large, handsome white grain. It does well on all kinds of soil. 75c. per peck, $2.25 per bush.; 10-bushel lots, $2.00 per bush.

Gold Coin (Beardless).

A very popular wheat that the increasing demand for the seed would indicate is a most satisfactory variety over a large extent of territory. It is unusually productive, having yielded over 60 bushels per acre—while 50 and over is not unusual—and even on large acreages it seldom runs under 40 bushels per acre. One of its enthusiastic users writes:

"It is the best variety for yielding and standing up ever placed before the American farmer, and fairly crowds out other kinds where it has been tried in this section."

"Clawson and Fife do well on my farm, but the Gold Coin does best of all. You should call it 'Henderson's Best of All Wheat.'"

The straw is very stiff and does not lodge even on the richest land. The head is long and compactly filled with choice white grain, frequently having five kernels abreast. (*See cut.*)

75c. per peck, $2.00 per bush; 10-bushel lots, $1.85 per bush.

Pedigree (Early Genesee) Giant. (Half-Bearded.)

This variety is truly a wonder in the wheat line for thrifty fall growth, early spring stooling, strong, short-jointed straw, solid filled head, fine, hard, amber grain and exceptionally fine milling qualities. On strong clay loam or river bottom it has yielded at the rate of 60½ bushels per acre, and stands up well under high culture. It is a cross from the old Genesee Giant, possessing all of the good qualities of that famous variety when at its best. It is stronger in growth, more compact in head, and produces a very large grain. Can be sown very late with a certainty of standing the winter and gives an enormous yield. Sow late and use two bushels of seed per acre. (*See cut.*)

75c. per peck, $2.25 per bush.; 10-bushel lots, $2.00 per bush.

LET US BOOK YOUR ORDER NOW {FOR SOME OF HENDERSON'S SUPERIOR} **WINTER SEED WHEAT** {FOR NEXT FALL'S SOWING

TO BE SHIPPED—CROPS PERMITTING—FROM 1903 CROPS AS SOON AS READY—AT OUR LOWEST PRICES AT TIME OF SHIPMENT.

BARLEY.

BARLEY

Should be more grown than it is, especially in these days of low-priced wheat. The straw makes excellent rough feed for all kinds of stock. It is also one of the best grains with which to sow down to grass in spring.

NEW WHITE HULLESS. A valuable new variety, which should be sown at the rate of 1½ bushels per acre about the time of sowing Oats. It is two or three weeks earlier than ordinary Barley, grows about the same height, and will not shatter in the field, even when very ripe. The grain is not unlike Wheat, and weighs about 60 lbs. per bushel, instead of 48 lbs. as other Barley. For feeding to horses and hogs, when ground, it is unequaled, and is also exceedingly valuable as hay, if cut and cured just before ripening. 75c. per peck, $2.00 per bushel of 48 lbs.; 10-bushel lots, $1.80 per bushel.

TWO-ROWED DUCK-BILL. The heads are of great length, and when maturing become slightly curved; the grains are large and plump and brighter than any other variety of two-rowed Barley. The straw is stronger than the old popular Chevalier Barley, and has yielded nearly 70 bushels per acre. 50c. per peck, $1.60 per bushel of 48 lbs.

VERMONT CHAMPION. Two-rowed, early, hardy and prolific. 50c. per peck, $1.60 per bushel of 48 lbs.; 10-bushel lots, $1.50 per bushel.

RYE

Is a valuable crop for either soiling, green fodder, straw or grain. It is largely used by farmers to seed down with in the fall, and is considered preferable to wheat for this purpose, as it protects the young grass and matures two weeks earlier in the summer than wheat. It is also extensively used for fall pasture when sown early and for cutting green in late spring and early summer, but when wanted for cutting it is best sown with the sand or winter vetch.

SPRING RYE. A variety produced by planting Winter Rye in the spring for several years, and selecting the seed until the type was fixed. It is an excellent "catch-crop" where fall-sown grain has been winter-killed, and also for fodder and grain. $2.00 per bushel of 56 lbs.; 10 bushels and upward, $1.85 per bushel.

EXCELSIOR WINTER RYE. A variety from Vermont, that has never failed to yield at the rate of from 40 to 50 bushels per acre. With the originator, a four-acre field yielded 52 bushels to the acre. $1.50 per bushel of 56 lbs.; 10-bushel lots, $1.40 per bushel.

WINTER RYE. The variety most commonly cultivated, whether sown for grain, straw or cutting green. $1.10 per bushel of 56 lbs.; 10-bushel lots, $1.00 per bushel.

THOUSANDFOLD RYE. Said to be the most productive Rye in cultivation; the straw is tall and strong, with long, heavy heads, and stands up well. Especially recommended where Rye is grown more for the straw than the grain. $1.50 per bushel of 56 lbs.; 10-bushel lots, $1.40 per bushel.

GIANT WINTER RYE. Unquestionably the heaviest cropping Rye in existence, having in fair tests outyielded all other varieties both in straw and grain. The heads average six to eight inches in length and are filled from end to end with large, plump, heavy grains. The straw is giant in length and strength and of extraordinary stiffness, resisting severe wind and rain storms to a remarkable degree without lodging. (*See cut.*) $1.75 per bushel of 56 lbs.; 10-bushel lots, $1.60 per bushel.

RYE, GIANT WINTER.

HENDERSON'S SUPERIOR SEEDS PRODUCE SUPERIOR CROPS

HENDERSON'S SUPERIOR SEEDS ARE PROCURABLE ONLY DIRECT FROM US

We are always pleased to hear from our farmer friends and offer any advice free on subjects connected with farm crops, etc.

Japanese Buckwheat

THE BEST VARIETY
YIELDS DOUBLE THAT OF OTHER SORTS
VERY EARLY
MAKES THE FINEST BUCKWHEAT FLOUR

Customers PRAISE Henderson's JAPANESE BUCKWHEAT

"I had a small quantity of Japanese Buckwheat from you last year, which I planted on the 5th day of July, and from this I cut, and had in good, clean Buckwheat, 1,392 pounds, which ripened earlier and has produced more than three times the yield of the Silver Hull with the same culture."
DAVID BEAM, Midvale, N. J.

"The Japanese Buckwheat ripened about one week sooner than the old-fashioned kind, and produced more than as much again to the same amount of sowing the past season."
LEMUEL VAN NESS, Pompton, N. J.

"Truly, the Japanese Buckwheat is one of the greatest improvements, in a single line of grain, of the present age. All other kinds of buckwheat can be well thrown aside; and not only the bee-keepers of our land, but farmers in general, can unite in tendering a vote of thanks to our enterprising seedsman, Peter Henderson."—GLEANINGS IN BEE CULTURE.

"I prefer the Japanese Buckwheat to all other kinds."
F. N. HILTON, Pontiac, Mich.

"The Japanese Buckwheat I got from you beats any I ever saw."
C. A. DEAN, Meshoppen, Pa.

"The Japanese Buckwheat I purchased from you is distinct, and stands the sun better than any other sort."
JOHN WILSON, Sandwich West, Essex Co., Ontario, Can.

"The Japanese Buckwheat that I purchased from you yielded me over five hundred-fold."
J. C. VAUSELOUR, Faribault, Minn.

"I found your Japanese Buckwheat first rate; it yielded four times more than the old kinds did in the same lot."
DAVID CEAS, Bloomville, N. Y.

"The Japanese Buckwheat I had of you last year produced four times as much (by weight) as any other variety, not counting what my neighbor's chickens, who visited it daily, stole."
PHILIP WECK, Col. Co., N. Y.

GROWN FROM IMPORTED SEED

SINCE we introduced the Japanese Buckwheat nearly twenty years ago, the tendency, on account of the hot, dry summers in the United States, has been for the grain to gradually grow smaller. The seed we offer is grown from the largest type imported from Japan and is much larger in grain than that usually offered, and it will pay all growers to renew their seed. The seed we offer is only one year removed from imported Japanese seed. This variety is now more generally grown than any other, but to those to whom it may still be unknown we would say that the kernels are at least twice the size of any other variety and of a shape peculiar and distinct from all others. The color of the kernels is also most distinct, being of a rich dark shade of brown. It ripens fully a week earlier than the Silver Hull, the straw is heavier, and it branches more and does not need to be sown so thickly as the other kinds. There is always a good market for the grain as it is in demand for all purposes, the export demand now being enormous. For bees it is of the greatest value and for this purpose has displaced all other varieties.

ALWAYS SOW WITH CRIMSON CLOVER

An excellent plan is to sow Crimson Clover along with buckwheat, especially when put in late from middle of July to first of August. They come up together, but the buckwheat is the stronger grower and the Crimson Clover makes but little showing until the buckwheat is removed. If frost should kill the buckwheat before ripe, it may be left as a protection, the dead buckwheat being just the sort of mulching and protection needed by the clover. The Crimson Clover and mulching of buckwheat can be plowed under in May and for potatoes or corn there is no better preparation. Japanese Buckwheat is one of the most satisfactory crops to sow on new or rough land, but buckwheat should invariably be sown as a second or catch crop, and we would advise all growers to sow Crimson Clover along with it as recommended above for, even though the buckwheat be killed by an early frost, the value of its own humus is worth more than the cost of the seed in addition to its value as a winter protection to the clover.

Price, $1.50 bushel; 10-bushel lots, $1.40 bushel.

"Last year I raised 116 bushels, 85 of Japanese and 31 of Silver Hull. I think the Japanese quite a bonanza."
J. H. KENNEDY, Quenemo, Osage Co., Kan.

"Your Japanese Buckwheat is a grand success and an acquisition of sterling worth, out-yielding all other varieties fourfold, with ordinary culture."
JACOB SENN, Cheswold, Del.

Wood's Northern White Dent ::CORN::

The Earliest Large, White Dent.

Ripens thoroughly in latitudes South of Albany and Buffalo.

Extraordinarily Prolific, often yielding 110 bushels shelled corn per acre.

LARGE EARS, 10 to 12 inches long, 7 to 8 inches in circumference.

Long Kernels, Small Cob.

Ears 2 to 3 feet from the ground.

PLANT LEAFY and LUXURIANT, making fine fodder.

Wood's Northern White DENT.

The Climax of 40 Years' Selection!

While the raiser, Mr. James Wood, of Westchester County, N. Y., ex-President of the New York State Agricultural Society, does not claim this to be a new variety, having originally been a white Southern Corn, yet by forty years of intelligent selection, it has become **the earliest large white Dent Corn** we know of, and is quite distinct from the original parent. **It will ripen in Connecticut, New York State (except in that portion north of Rochester and Troy), Southern Michigan, Southern Wisconsin, etc., and being vastly superior in every respect to the flint varieties and the small Dent Corns usually raised, will be by far the most profitable sort in latitudes north of New York City, where the Eureka cannot safely be planted.**

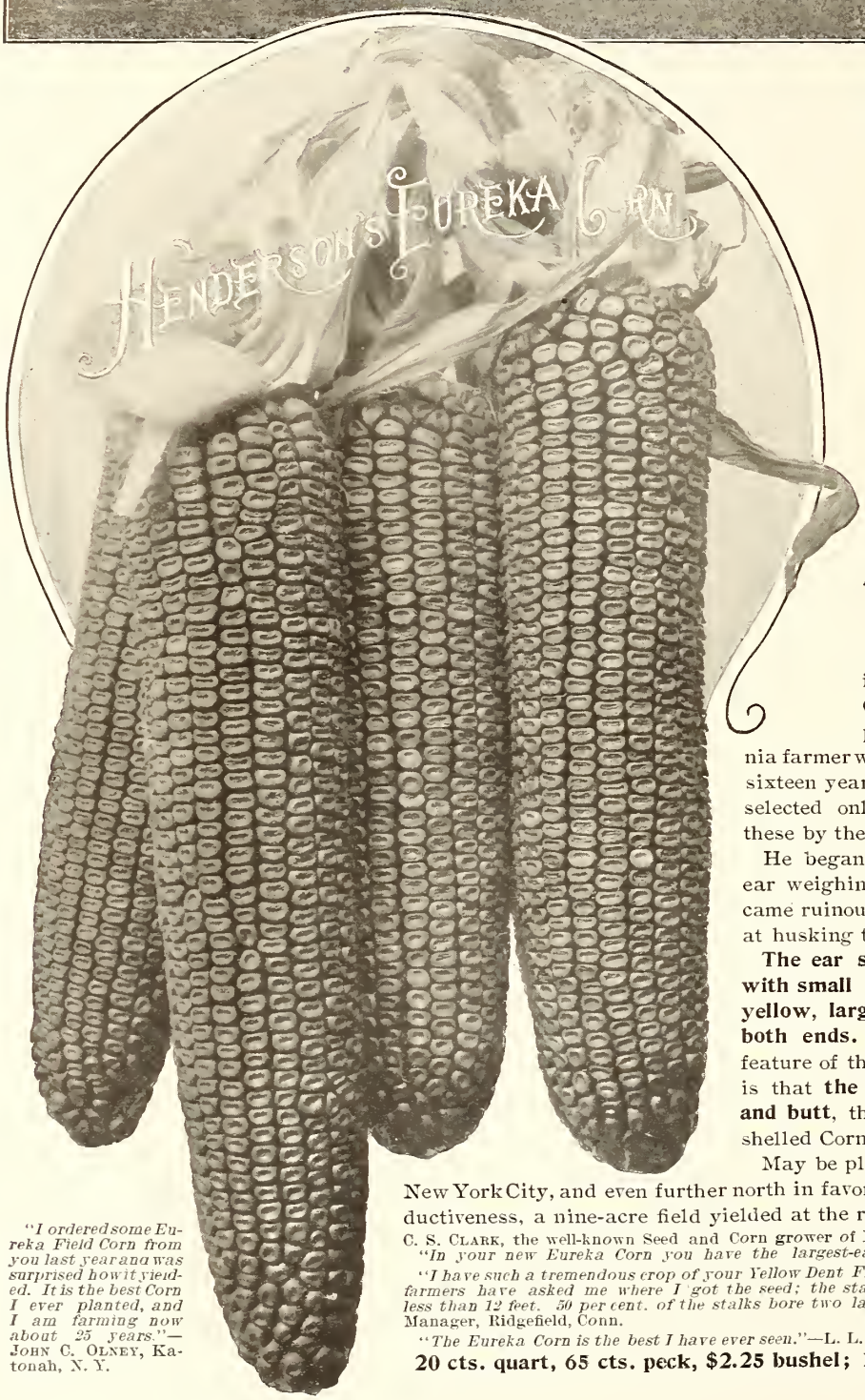
This Corn was referred to in the *New York Tribune Farmer*, Nov. 7th, 1901, in an article on Mr. Wood's farm, as follows:

"Forty years ago Mr. Wood set out to find the most profitable variety of Corn for him to raise. He had learned that his farm was nearly on the dividing line between the south and the north, agriculturally considered, so he tried the white Southern Dent, obtaining his seed from Long Island, where it had been grown for twenty years. It did well, but the ear was from 4½ to 5 feet from the ground, leaving a nearly valueless butt, and the cob was too large a portion of the ear. For forty years he has been breeding out the butt and the cob. The lower ear on the stalk is now only two feet or so from the ground, and the relative size of this cob has been greatly reduced.

"Corn breeding is exciting much attention at this time. Here are the results of forty years of experiment on that line, and a better object lesson could hardly be found to establish its value and hint at its enormous possibilities. Mr. Wood always looks for one and a half bushels of ears from twenty-five hills, and this represents a larger proportion of shelled corn than is usually estimated. He has often raised 110 bushels of shelled corn to the acre."

(*See cut.*) 20 cts. quart, 75 cts. peck, $2.75 bushel; 10-bushel lots, $2.65 bushel.

HENDERSON'S EUREKA DENT CORN.



HENDERSON'S

Eureka

Yellow Dent

Corn.

The finest Field Corn Grown.

Large, Handsome Ears, 12 to 15 inches long, weighing 1 to 2 lbs. each.

Heavy Yielder, 150 bushels Shelled Corn per acre not unusual.

The photograph gives a very inadequate idea of the magnificent appearance of this Corn. It is the result of the most careful and persistent selection by a wealthy Pennsylvania farmer who makes Corn his hobby and his pride. For sixteen years he has, from a planting of 80 to 100 acres, selected only the best ears at husking time, planting these by themselves and continuing this selection.

He began by offering his huskers five cents for every ear weighing two pounds and over, but that soon became ruinous, and in later years a man was appointed at husking to do nothing but look out for ideal ears.

The ear sets fairly low on the stalk, is immense, with small red cob, the grain a clear bright reddish yellow, large and of great depth, filled out full over both ends. It runs 18 to 22 rows, and an important feature of the selection clearly shown in the photograph is that **the rows run even, the same number at tip and butt**, thereby materially increasing the amount of shelled Corn per acre.

May be planted with safety in latitudes as far north as New York City, and even further north in favorable locations. As an indication of its productiveness, a nine-acre field yielded at the rate of 144 bushels per acre. (*See cut.*)

C. S. CLARK, the well-known Seed and Corn grower of Huron County, Ohio, writes:

"In your new Eureka Corn you have the largest-eared Corn in cultivation; it's a wonder."

"I have such a tremendous crop of your Yellow Dent Field Corn that it attracts general attention, and several farmers have asked me where I got the seed; the stalks average 14 feet high, some are 17 feet, and none less than 12 feet. 50 per cent. of the stalks bore two large ears each."—H. DE B. SCHENCK, per WM. C. NASH, Manager, Ridgefield, Conn.

"The Eureka Corn is the best I have ever seen."—L. L. LEE, Marion, Alabama.

20 cts. quart, 65 cts. peck, $2.25 bushel; 10 bushels and upwards, $2.15 bushel.

"I ordered some Eureka Field Corn from you last year and was surprised how it yielded. It is the best Corn I ever planted, and I am farming now about 25 years."—JOHN C. OLNEY, Katonah, N. Y.

FIELD CORN.

If wanted by mail, add 15 cts. per quart for postage. Corn planted in hills requires eight or ten quarts per acre.

DENT VARIETIES.

All the varieties offered below (except Pop Corn), in lots of 10 bushels and upwards, $1.85 per bushel.

EARLY MASTODON. (*The Earliest Large Dent Corn.*) Produces large ears for an early variety. It grows strong at a medium height, with broad, heavy leaves, and makes a fine shelled corn in appearance, being purely Dent. 15 cts. quart, 60 cts. peck, $2.00 bushel.

GOLDEN BEAUTY. This corn has given most excellent satisfaction. It is exceedingly productive; a large proportion of the stalks produce two fine ears. The ears are of perfect shape, with from ten to fourteen rows, and filled out completely to the extreme end of cob. The cobs are unusually small. The richness of color and fine quality of grain make it very superior for grinding into meal. 15 cts. quart, 60 cts. peck, $2.00 bushel.

EXTRA EARLY HURON. As early as most of the flint corns, and may be grown even in the most Northern States and in Canada. The grain is somewhat narrow, but long and deep, with small cob. 15 cts. quart, 60 cts. peck, $2.00 bushel.

QUEEN OF THE PRAIRIE. (*Pride of the North.*) This variety is valuable to grow North as it matures early. Planted as late as July 4th, it has fully matured by October 1st. The ears grow 8 to 10 inches in length, from 14 to 16 rows, slightly tapering. The kernels are closely set together on the cob, of a light orange color at the outer end, darker in color lower, and makes excellent meal. 15 cts. quart, 60 cts. peck, $2.00 bushel.

EARLY BUTLER. A cross from Pride of the North, and has the smallest cob of any Dent Corn in cultivation. It is also the very earliest Dent Corn and is very profitable to grow. It is just the corn for northern farmers—grows quick and strong, has small cobs, very long grains, and good-sized ears. 15 cts. quart, 60 cts. peck, $2.00 bushel.

HUNDRED DAY BRISTOL. A very early variety of wonderful productiveness. The ears being remarkably large for such an early ripener; the grain is a light yellow, with small cob. 15 cts. quart, 60 cts. peck, $2.00 bushel.

LEAMING. Ears are of good size, set low down, and nearly always grow two to each stalk. Very small, red cob, with a deep, long grain, of a rich golden color. It matures reasonably early, and if planted by the first of June, will generally ripen, and be fit to husk and crib early in September. 15 cts. quart, 60 cts. peck, $2.00 bushel.

WHITE CAP YELLOW. An early variety, said to produce better results on poor, thin or sandy soil than any other variety, and is less affected by drought. The grain is handsome yellow in color, with white tips. 15 cts. quart, 60 cts. peck, $2.00 bushel.

HICKORY KING. Has *the largest grains* with *the smallest cob* of any white corn. The stalks, of strong, vigorous growth, generally bear two good ears each, and occasionally three. It is not, however, considered a safe crop north of Philadelphia. Will make *more shelled corn to a given bulk of ears than any other variety.* 15 cts. quart, 60 cts. peck, $2.00 bushel.

FLINT VARIETIES.

10 bushels and upwards, $1.85 per bushel.

LONGFELLOW. A large 8-rowed yellow flint variety well adapted for the Northern States. The ears are remarkably long (*see cut*), some of them measuring 15 inches, and oftentimes two or more good specimens grow on one stalk. Grain large and broad and yellow. The cob is quite small. It is the largest variety of yellow field corn safe to plant in the latitude of Massachusetts, where it is quite extensively grown. 15 cts. quart, 60 cts. peck, $2.00 bushel.

COMPTON'S EARLY. The earliest known yellow flint variety, ripening in from 76 to 85 days. It is a handsome 10 and 12-rowed sort, very productive, and will ripen in the Northern States. 15 cts. quart, 60 cts. peck, $2.00 bushel.

LARGE WHITE FLINT. Handsome ears, large and well filled, kernels white and of fine quality. 15 cts. quart, 60 cts. peck, $2.00 bushel.

LARGE YELLOW FLINT. (*Early Canada Yellow.*) Similar to the above excepting in color; largely grown in the extreme North. 15 cts. quart, 60 cts. peck, $2.00 bushel.

KING PHILIP. Coppery red. Very early. Usually matures three months after planting. Ears large sized and handsome, 10 to 12 inches long. 15 cts. quart, 60 cts. peck, $2.00 bushel.

RURAL THOROUGHBRED WHITE FLINT. In appearance this closely resembles the old white flint, but the plant branches and suckers more, and is therefore valuable for ensilage in the Northern States, as well as for the grain. 15 cts. quart, 60 cts. peck, $2.00 bushel.

POP CORN.

WHITE PEARL. Smooth-grained ears, 4 to 5 inches long, by ⅞ to 1⅛ inches diameter, good for either family or market use. 10 cts. lb.; 100 lbs., $8 00.

EARLY AMBER RICE. A new and distinct shade of color, it matures very early and is in every respect a first-class pop corn. 15 cts. lb.; 100 lbs., $12.00.

WHITE RICE. (*Rat Tooth.*) A very fine white variety, ears 4 to 5 inches in length, and 1 to 1½ in diameter. Kernel pointed. Especially salable among the retail grocers. 10c. lb., 100 lbs., $8.00.

Buy Corn for Feed. Buy Seed Corn for Seed.

EARLY AMBER SUGAR CANE.

CORN for Fodder and Ensilage.

EVERGREEN SWEET FODDER CORN. Fodder grown from the Evergreen Sweet Corn is superior in quality to that of the ordinary field varieties, being richer, sweeter and more digestible. The best plan is to sow in rows 24 to 30 inches apart, using one bushel of corn per acre. $2.00 bushel; ten bushels and upwards, $1.80 bushel.

SWEET FODDER CORN. Best for cutting and feeding green during the summer months. This is better than any field corn, from the fact that it is so very sweet and nutritious that cattle will eat every part of the stalk and leaves with relish. Drill thickly, in rows three feet apart, using 1½ bushels of seed per acre. $1.75 bushel; 10 bushels and upwards, $1.60 bushel.

SOUTHERN HORSE TOOTH. Grows to a large size, is very leafy and well adapted for ensilage. Large quantities of this corn are sold by feed and other stores which usually result in disappointment to the farmer. There is no corn more difficult to cure or keep properly, and much of it is kiln-dried, while large quantities have been stored in elevators and gone through a sweating process which has destroyed the germ. The stock we offer is carefully selected and sun-dried and of high germination. $1.50 bushel; 10 bushels and upwards, $1.40 bushel.

IMPROVED EARLY HORSE TOOTH. Being nearly two weeks earlier, this variety is better adapted for fodder and ensilage in the Northern States than the ordinary Southern Horse Tooth. (*See cut.*) $1.60 bushel; 10 bushels and upwards, $1.50 bushel.

RURAL THOROUGHBRED WHITE FLINT. An early variety, valuable for the Northern States. Owing to its suckering and branching habit, it yields enormously. $1.75 bushel; 10 bushels and upwards, $1.60 bushel.

SUGAR CANE and BROOM CORN.

SUGAR CANE, Early Amber. Of great value for cutting green and feeding green during hot weather in summer, when pastures are apt to be burned up. Being a tropical plant, it makes its best growth during just such weather, and cattle, horses and sheep relish it, and it may be fed to them with safety. Sow in drills, 10 to 12 lbs. per acre; broadcast, 20 to 25 lbs. per acre. Should be cut when about 2 feet high, and will yield several such cuttings. Earlier than the Orange and may be grown even in Northern States. Cured in the same way as a heavy crop of Clover, it makes an excellent quality of hay. (*See cut.*) 10 cts. lb.; 100 lbs., $6.00.

SUGAR CANE, Early Orange. Produces a larger and heavier growth than the Amber but is later. 10 cts. lb.; 100 lbs., $6.00.

BROOM CORN, Evergreen. Entirely free from all crooked brush, and remains strictly green, consequently always commands the highest market price. 10 cts. lb.; 100 lbs., $6.00.

RURAL BRANCHING DOURA.

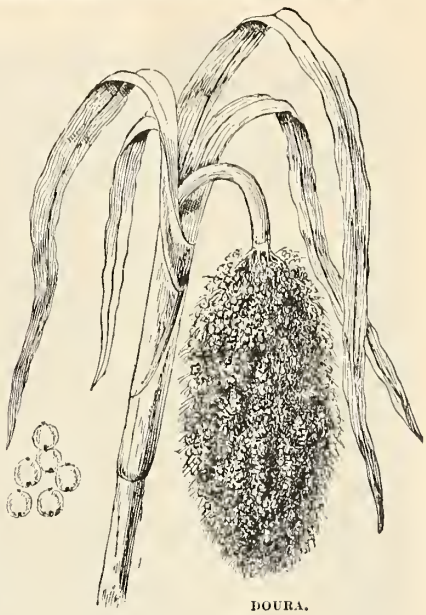
(*Millo Maize, Sorghum Vulgare.*)

A wonderfully productive fodder plant that makes a great amount of foliage, and can be cut several times in the season. Plant 4 to 5 lbs. to the acre. (*See cut.*) 12c. lb.; 100 lbs., $8.00.

YELLOW BRANCHING DOURA.

(*Yellow Millo Maize.*)

Earlier than the Rural Branching, and of taller growth, often attaining a height of 9 to 12 feet, but it does not stool out quite as much from the ground, although it branches out from the joints. It produces an enormous quantity of fodder, for which stock show a marked partiality. Plant 4 lbs. to the acre. (*See cut.*) 12c. lb.; 100 lbs., $8.00.



DOURA.

JERUSALEM CORN.

Grows about five feet high, and is one of the surest crops for dry countries and seasons, having in the driest season in the past 15 years in Kansas produced a crop, without irrigation, when other forage plants perished. Five pounds will plant an acre. 12c. lb.; 100 lbs., $8.00.

TEOSINTE.

"I cannot say too much for your Jerusalem Corn. I drilled in about 15 acres after the ground was so dry in May that I did not think it would sprout, and with not a bit of rain, on dry upland, I now have over 15 tons of fine seed. I tell you it is the crop for dry land and for very late planting. It seems to me it should be better advertised, so all farmers, in dry sections, could know how valuable it is."—C. W. GAMMON, Walnut Grove, Cal.

TEOSINTE.

(*Reana Luxurians.*)

The plant resembles Corn, but is more leafy and tillers enormously. After cutting it grows again with remarkable rapidity. Those having only a small amount of land on which it is desired to produce the maximum amount of forage should sow Teosinte. Plant in drills, 6 to 8 lbs. per acre. (*See cut.*) 90c. lb.; 10 lbs. and upwards, 80c. lb.

WHITE KAFFIR CORN.

Grows four to five feet high, with numerous wide leaves. (*See cut.*) 10c. lb.; 100 lbs., $6.00.

RED KAFFIR CORN.

This very leafy and juicy variety is taller but more slender than the white, ripens a little earlier and yields heavier. It is also valuable for sowing on poor land, as it will give better results under these conditions than the White Kaffir Corn, as well as other Sorghums, most of which require a well-enriched soil. (*See cut.*) 10c. lb.; 100 lbs., $6.00.

KAFFIR CORN.

A type of non-saccharine Sorghum of greatest value for both fodder and grain.

Kaffir Corn is a valuable forage plant, growing 4½ to 6 feet high; it is stocky, erect, and produces wide, luxuriant, succulent foliage, making excellent fodder, either green or dried, and is highly relished by all kinds of stock. Each stalk produces from 2 to 4 heads of grain. These heads are long and narrow. Kaffir Corn has the quality common to all Sorghums, of resisting droughts, and in this fact is to be found its peculiar value, especially in southern sections; it has yielded paying crops of grain and forage even in seasons so dry that corn utterly failed. The culture is the same as for Field Corn.

KAFFIR CORN.

JAPANESE MILLET. (Panicum crus-galli major.)

The best recent introduction for the Silo and Cutting Green.

Entirely distinct from any other millet, grows tall and produces an enormous crop. It may be sown from the middle of May to the 1st of July, broadcast, at the rate of 15 lbs. per acre, but it is better to sow it in drills, 12 to 18 inches apart, using 10 to 12 lbs. per acre, and hoed between the rows to keep down all weeds until the plant attains a height of 12 to 18 inches, when its rapid growth will smother all weeds. It grows 6 to 8 feet high, stands remarkably well notwithstanding its great height, and yields from 10 to 12 tons green fodder per acre. When cured it makes an excellent quality of hay, and its feeding value is far superior to corn fodder, and it is much relished by all kinds of stock, whether green or cured. If to be made into hay, cure as you would a heavy crop of clover. An ideal ensilage mixture may be composed of two parts of this millet to one part of soja beans (*see page* 34), mixed when filling the silo. The soja beans supply the albuminoids and fat in which the Corn and Millet are deficient. ***This mixture forms a complete balanced ration for milch cows without the addition of grain,*** though it is, of course, advisable to feed grain occasionally as a change. This ensilage combination will certainly become popular, and when generally used, as we predict it will be, it will result in a saving of hundreds of thousands of dollars annually to the dairymen and farmers of the United States. This Millet does not endure drought well, except it be sown early in retentive soil, and it is not adapted to the climate, nor is it recommended for the Southern States; but north of Washington, and especially for good, rich soils, we confidently recommend its general cultivation. It will produce a fair second cutting, if sown early in May, and cut when in blossom. (*See cut.*)

Especially valuable for the Northern and New England States.

FROM EIGHTH ANNUAL REPORT
OF THE
HATCH EXPERIMENT STATION,
OF THE
MASSACHUSETTS AGRICULTURAL COLLEGE.

FOR GREEN FODDER AND THE SILO. "Of Japanese Millet several pieces, of an acre or more each, were sown for feeding green or for the silo. The earliest, sown broadcast about the middle of May on rich land, one peck of seed to the acre, averaged about six feet in height, and produced over 15 TONS PER ACRE. This was cut from day to day, beginning before the millet had blossomed. Another field of about an acre, sown the last of June, yielded at the rate of rather over 18 tons per acre. Another field, sown July 26th, after a crop of hay was removed, yielded about 12 tons per acre. The crop of the two last fields was put into the silo. That cut from day to day, and fed to cows, was much relished. Its superiority to well-eared flint corn fodder was very apparent. Cows with both before them always take the millet first; they cousume it without waste, while they are apt to leave a part of the stalks of the corn as it approaches maturity. In alternating this feed with corn fodder, the cows invariably increased in milk when put upon the millet, and fell off when changed to corn.

It has been ensiled with soja beans,—about two parts by weight of the millet and one of the beans. This combination makes very superior silage."

FOR HAY. "A more extensive trial of this millet for hay has been carried out this year than ever before. It is coarse and difficult to dry. I have always felt that these qualities would render it undesirable as a crop for hay. We have, however, cured it successfully this year, mostly in small cocks, as clover is often cured; and the result is encouraging. The hay is coarse, but is freely eaten by horses, being preferred to a good sample of timothy, red top and clover mixture. The yield of the millet is very large, having on good land amouuted to 6 tons per acre of well cured hay. It will produce a fair second cutting if sown early in May and cut when in blossom."

Hundreds of our customers who have procured seed of Japanese Millet from us during the past two seasons can endorse the above.

Price, 10c. lb.; 10 lbs., 90c.; 100 lbs., $7.50.

MILLET

Excellent catch crops for sowing during the summer, and are especially valuable in seasons of short hay crop. They cure into excellent hay if cut when in blossom; if allowed to ripen they become too woody.

HUNGARIAN. (*Panicum Germanicum.*)—Is the quickest of catch crops for hay, and as it may be sown any time during the summer months up to middle of August, it is invaluable for overcoming a shortage of the regular hay crop. Many farmers now occupy their land with other crops, and for their hay depend entirely upon Hungarian Grass, which they can sow after other crops have been harvested. Sow 1 bushel per acre. (*See cut.*) $2.20 bushel of 48 lbs.; 10 bushels and upwards, $2.10 bushel.

GERMAN or GOLDEN. (*Panicum Miliaceum Aureum.*)—This variety is considerably larger than Hungarian and yields a much heavier crop, but is later and not so quick growing, consequently cannot be sown much after the fourth of July in this latitude. To maintain its heavy cropping character, seed of this variety needs to be specially cultivated.

Our seed is specially grown and selected, and will produce nearly double the crop of seed not so grown and which can be offered at a cheaper price. Sow one bushel per acre. $1.90 bushel of 50 lbs.; 10 bushels and upwards, $1.80 bushel.

HUNGARIAN MILLET.

PEARL MILLET.

PEARL MILLET

(Pennisetum Spicatum)

This has been cultivated for some years in some of the Southern States, under the names of African Cane, Egyptian Millet, Cat-tail Millet and Horse Millet. It grows with tropical luxuriance in strong, loamy soil, particularly if well enriched, and then attains a height of from 7 to 9 feet, and produces an *enormous* quantity of green fodder, for which purpose it can be cut several times during the season, as it immediately starts a new growth after cutting, and grows with great rapidity. Is not so hardy as the other varieties, and succeeds best in latitudes south of New York. The first cutting should be made when about 3 feet high; this will cause it to tiller and spread, and as the season advances and becomes warmer, it grows with marvellous rapidity. No other crop will yield as much forage as Pearl Millet when sown on richly manured land. It will prove of exceptional value if grown in sections subject to protracted droughts, where natural grasses dry up, as it will keep on growing, though of course not so luxuriantly. Sow in drills, 5 to 6 lbs. per acre; if broadcast, 8 lbs. per acre. Weight, per bushel, 56 lbs. (*See cut.*) Clean seed, 12 cts. lb., $10.00 per 100 lbs.

FIELD OF EARLY SOJA BEANS AT CENTRAL EXPERIMENTAL FARM, OTTAWA, CANADA.

EARLY GREEN SOJA OR SOY BEANS.

SOJA BEANS have attracted much attention in recent years on account of their high feeding qualities, but all were too late to be of value in the Northern States. This early green variety has proved its earliness and value in the Northern States **by not only producing large fodder crops, but ripening the seed as far north as Massachusetts.** It is worthy of a place on every farm, either as a grain crop or fodder crop to feed green, or for the silo. **The grain is the richest known vegetable substance, and when ground and fed to cattle gives a milk richer and better than cotton seed or other meal.** **FOR ENSILAGE IT FORMS A COMPLETE, BALANCED FEED RATION.**

While corn is the most serviceable crop for ensilage, though ever so well preserved as to succulence, odor and flavor, it is an incomplete feed for cattle, being deficient in albuminoids or protein (the flesh formers), as well as fat. This deficiency has hitherto been supplied by feeding, in addition to the corn silage, such grain as oats, wheat, etc., or concentrated feeds, such as meal, oil cake, or some other commodity, rich in the elements in which corn silage is deficient. **But the American farmer can now, by the aid of the Soja or Soy Bean and Japanese Millet, grow on his own farm, at small cost, a combination which furnishes a wholesome, economical and completely balanced feed for milch cows.** This combination should be composed of two parts millet or corn to one part Soja Beans, grown separately, but mixed thoroughly, at the time of cutting and filling of the silo. **This combination ensilage develops a most agreeable aromatic odor, and is greedily relished by cattle—both dairy cows and fattening stock.** It certainly will be generally used by all up-to-date farmers and dairymen, and will revolutionize the dairy industry of the United States. We do not recommend the feeding of this combination to the entire exclusion of grain or other concentrated feed. We recommend that grain be fed occasionally as a change, but four-fifths of the grain bill can be saved. We recommend all farmers to plant this year at least an acre or two of our Early Green Soja Beans and an equal area of Japanese Millet, to test and prove for themselves the value of the combination, and we are confident that, thereafter, all who try it will each year grow a larger acreage. Planted the latter part of May, in latitude of New York, the Beans are ready for harvesting in about 100 days. Japanese Millet comes quicker to maturity than Soja Beans, and on the authority of Prof. W. P. Brooks, of Hatch Experiment Station, Mass., should be sown from four to five weeks later, so as to be in the best condition for the silo, along with the Soja Beans. Sow the Beans from the middle to end of May, and the Millet from last week in June till first week in July; both will then be ready for silo about the end of August.

VALUABLE
FOR EITHER
FODDER or GRAIN.

PRODUCES
ENORMOUS CROPS
As far North as Canada.
RIPENING SEED AS FAR NORTH AS MASSACHUSETTS.

Especially Valuable
(in combination with Japanese Millet and Fodder Corn)
FOR ENSILAGE,
Supplying the albuminoids or flesh-forming food.

A GREAT
SOIL ENRICHER,
GATHERING NITROGEN FROM THE AIR.

Planted in rows 2½ feet apart, 6 to 8 plants to the foot of row, requiring three pecks per acre, they yield 15 to 20 tons per acre of fodder very rich in flesh formers. For green feed, use from time of blossoming till pods are well filled; for the silo, cut as soon as most of the pods are well filled, and cut into ½-inch to 2½-inch lengths. **They are soil enrichers, gathering nitrogen from the air same as clover, the roots being crowded with tubercles, which give them this power.** (*See cut.*) **10c. lb., $1.25 peck, $4.00 bushel of 60 lbs.; 10-bushel lots, $3.85 bushel.**

LATE SOJA BEANS.—A month later than the early variety; should not be used north of Virginia. **$1.00 peck, $3.00 bushel.**

HENDERSON'S SUPERIOR SEEDS are procurable only from us direct—we do not supply through Dealers.

PEAS FOR FODDER AND GREEN MANURING.

"Peas could be made to bring more nitrogen to the soils of this country every year than is now purchased annually by the farmers at a cost of millions of dollars."—Yearbook of the U. S. Department of Agriculture.

For the Northern States there is no crop of greater value than Field Peas and none is more neglected, which can only be attributed to a lack of knowledge as to its merits. Whether for fodder, in mixture with oats, sown at the rate of two bushels each per acre, or the Peas sown alone at the rate of three bushels per acre for plowing under, there is no crop that we can so strongly recommend for more extended culture.

Like all leguminous crops, Peas have the power of extracting nitrogen from the air, and the soil from which a crop of Peas has been harvested is richer in nitrogen than before the Peas were sown upon it, and there is no kind of live stock on the farm to which Peas and Oats in mixture cannot be fed with positive advantage. The Canada varieties and Marrowfat should be sown early in spring, but Cow Peas are more tender and should not be sown until corn-planting time. Cow Peas, being of very rapid growth during the warm weather, can be sown as late as the middle of July with reasonable assurance of a profitable crop, either for harvesting or plowing under. (*See cut.*)

HENDERSON'S FIELD PEAS FOR FODDER.

COW PEAS.

One of the most valuable of the leguminous crops, and as a soil improver can be sown in the spring or summer and plowed under in the fall. They have no superior, especially for light soils. Their capacity for gathering nitrogen from the air is not surpassed by the clovers, and enables the farmer to dispense with buying that most costly ingredient for commercial fertilizers—nitrogen. Valuable for green forage or hay crop.

BLACK-EYED COW PEAS. An excellent early sort and valuable as a soil improver and also as a forage crop, yielding a large amount of rich, nutritious food. $2.90 per bushel of 60 lbs.; 10-bushel lots, $2.80 bushel.

BLACK COW PEAS. Earlier than the Black Eye, but the yield is only medium. $2.80 per bushel of 60 lbs.; 10-bushel lots, $2.70 per bushel.

CANADA WHITE PEAS. For fodder sow with oats at the rate of 2 bushels per acre; if alone, 3 bushels per acre. 60c. peck, $2.00 bushel of 60 lbs.; 10-bushel lots, $1.90 bushel.

CANADA BLUE PEAS. 70c. peck, $2.50 bushel of 60 lbs.; 10-bushel lots, $2.40 bushel.

LARGE MARROWFAT PEAS. Of immense growth, yield heavily both grain and fodder, and we consider them the best of the Field Peas, whether for growing alone or in mixture with oats or barley. $3.00 bushel of 60 lbs.; 10-bushel lots, $2.90 bushel.

MISCELLANEOUS AGRICULTURAL SEEDS.

If by mail in quantities of half pound and upward, postage must be added at the rate of 8 cents per pound.

ARTICHOKES, JERUSALEM. Strong tubers. A hardy perennial, forming roots like a potato, making excellent feed for stock, especially for hogs. 20c. quart, $1.00 peck, $3.00 bushel.

AUSTRALIAN SALT BUSH. (*Atriplex semibaccatum.*) A valuable forage plant recently introduced and highly recommended for growing on alkali soils and in sections subject to protracted droughts. Experiments have proven that it will grow on soils where nothing else will grow. It is nutritious and readily eaten by all kinds of live stock. One pound of seed is sufficient for an acre. The best plan is to sow the seed in well-prepared garden soil and the seedlings, when 2 or 3 inches high, planted 6 or 8 feet apart. 20c. oz., $1.50 lb.

VELVET BEAN. A leguminous plant which grows an enormous crop, but is very late, and is valuable only in the Southern States and tropical countries. Specially desirable for plowing under in orange groves and sugar plantations. $1.00 peck, $3.25 bushel.

BURLINGAME MEDIUM BEAN. A little smaller in the grain than the ordinary medium beans, but is whiter and far handsomer in appearance. $1.25 peck, $4.00 bushel.

IMPROVED RED KIDNEY BEAN. Much more prolific than the ordinary Red Kidney. $1.25 peck, $4.00 bushel.

WHITE MARROW or NAVY BEAN. The variety so extensively grown for sale in the dry state. $1.00 peck, $3.25 bushel.

BOSTON SMALL PEA BEAN. A desirable variety to grow, being early, hardy and prolific. $1.25 peck, $4.00 bushel.

FIELD LUPINS. May be sown from April to July, and succeed well on the poorest soil; are particularly valuable for plowing under on poor, sandy soils. 15c. lb., $12.00 per 100 lbs.

SUNFLOWER, MAMMOTH RUSSIAN. Highly valued as an excellent and cheap food for fowl. It is the best EGG-PRODUCING FOOD known. It can be raised cheaper than corn. Four quarts of seed will plant one acre. 10c. lb., $1.50 bushel, $6.00 per 100 lbs.

FLAX SEED. 25c. quart, by mail, 40c.; $4.00 bushel.

SAINFOIN. An excellent fodder plant, particularly for light, dry, sandy, gravelly, limestone or chalky soils. 12c. lb., $10.00 per 100 lbs.

SPRING VETCHES, or TARES. (*Vicia sativa.*) A species of the Pea, grown for stock, and often mixed with oats for soiling. Sown broadcast at the rate of 2 to 3 bushels per acre. 10c. lb., $2.75 bushel of 60 lbs.; 10-bushel lots, $2.65 bushel.

WILD RICE. (*Zizania aquatica.*) It succeeds best when sown in the fall broadcast, from a boat, in 2 to 3 feet of water having a mud bottom, but it can be sown in the spring. As an attraction for wild fowl it cannot be equalled. 25c lb., $18.00 per 100 lbs.

Dwarf Essex Rape

* At the Michigan Experiment Station, 128 lambs were pastured for eight weeks on 15 acres of Rape sown in July, and showed a gain of 2,890 lbs., or at the rate of 3 lbs. per lamb each week.

TRUE DWARF ESSEX RAPE.

Valuable for Cattle, Sheep and Hogs.

In the United States we have millions of acres of good land that annually lie idle or run to weeds the latter part of the season, after the grain, potato and hay crops have been harvested, a large portion of which might be made to produce one of the finest feeds imaginable, and in the greatest abundance, at a time when cattle, sheep and hogs are roaming through bare pastures in search of a scanty living. Under favorable conditions it is ready for pasturing sheep or cattle within six weeks from time of sowing, and on an average one acre will carry twelve to fifteen sheep six weeks to two months. When on the Rape they should at all times have access to salt; but water is not necessary. There are several varieties of **Rape**, but care should be taken to procure the **Dwarf Essex**, or English, as it is sometimes called, which does not seed the same season as sown, unless in some exceptional cases, as when sown too early and the young plant is touched by frost. In the Northern States it should be sown from April to end of August for fall pasturing, but as it thrives best in cool weather, it should not be sown in the Southern States until September, or October for winter pasture. In the latitude of New York it should be sown in April, or in July or August. Its fattening properties are probably twice as good as those of Clover, and for sheep the feeding value of **Rape** excels all other plants we know of. At the Michigan Experiment Station, 128 lambs were pastured for eight weeks on 15 acres of Rape sown in July, and showed a gain of 2,890 lbs., or at the rate of 3 lbs. per lamb each week. Even so far South as Alabama it has proved a boon to the farmer. In a recent bulletin published by the Alabama Experiment Station they state: "Quality of product good for both hogs and cattle. The growth was enormous. By repeated sowings it will and did carry more hogs through our dry, hot summers than four times the amount of land planted in anything else ever grown here. I would recommend it to all Southern farmers." To secure the best results, the Rape should be sown in drills. Sow 4 lbs per acre broadcast, 2 to 3 lbs. per acre in drills. (See cut.) **Price, 10c. lb., $3.25 bushel of 50 lbs., 100 lbs. $6.25.** If by mail, add 8c. per lb.

SAND, OR WINTER VETCH.

(*Vicia Villosa.*)

Though it succeeds and produces good crops on poor, sandy soils, it is much more vigorous on good land and grows to a height of 4 to 5 feet. It is perfectly hardy throughout the United States, remaining green all winter, and should be sown during August and September, mixed with Mammoth Red Clover, in sections where it will not winter-kill, or with Rye, which serves as a support for the plants; or in spring with Oats or Barley.

It is the earliest crop for cutting, being nearly a month earlier than Scarlet Clover, and a full crop can be taken off the land in time for planting spring crops. Being much hardier than Scarlet Clover, this is the Forage Plant to sow in the Northern States, where Scarlet Clover winter-kills, though it is equally valuable in the South. Every dairyman and stock-breeder in the United States should have a field of it, and if you try it once you will never be a season without it.

It is exceedingly nutritious, much more so than Clover, is eaten with relish, and may be fed with safety to all kinds of stock.

It will also prove valuable for a Hay crop in the South and dry Western regions, as it may be sown in the fall and will make a luxuriant growth during the fall and spring months, and will yield a heavy crop, which may be cut and stored before the droughts set in.

Sow one bushel per acre, with one-half bushel of Rye or Wheat. (See cut.) **Price, 12c. lb., $6.50 bushel of 60 lbs., 100 lbs. $10.50.** If by mail, add 8c. per lb.

HENDERSON'S ... SUPERIOR ROOT CROPS FOR ... FARM STOCK.

CARROTS.

There is no more profitable root crop on the farm than Carrots, especially on deep, sandy soils. When grown as a field crop the finest and most shapely roots can be sold at a handsome profit, the balance fed to stock with the most beneficial results. Horses are particularly fond of them, and besides the nutritive value they seem to be a sort of tonic to horses, keeping them in the best of condition with sleek-looking coats. They can be stored or pitted in the same way as potatoes and marketed or used during the winter. The best plan is to prepare the ground in April and harrow twice before sowing the seed the latter part of May. This will kill most of the weeds, and sown at this time the Carrots will come along quickly and be easily cultivated and kept clean. The rows should be 18 inches to 24 inches apart, and to secure large, shapely roots they should be thinned to 5 or 6 inches apart.

Any farmer who once grows a good crop will appreciate their value and never be without them.

WHITE VOSGES.—The heaviest-cropping field Carrot, producing thick, shapely carrots, which are easily harvested. They are used for stock feeding. They grow clean and free from side roots, and are easily harvested. 10c. oz., 25c. ¼ lb., 70c. lb.

LONG ORANGE IMPROVED.—Of large size, fair specimens averaging 12 inches in length, with a diameter of 3 inches at the top. Color orange-red. Fed to milch cows it imparts to the butter a delicious flavor and rich golden color. 10c. oz., 25c. ¼ lb., 80c. lb.

HENDERSON'S HALF-LONG DANVERS.—A handsome cylindrical-shaped Carrot of good size and stump rooted. Under the best cultivation it has yielded from 25 to 30 tons per acre. (*See cut.*) 10c. oz., 30c. ¼ lb., 90c. lb.

LARGE WHITE BELGIAN.—Exclusively grown for stock. 10c. oz., 20c. ¼ lb., 50c. lb.

LARGE YELLOW BELGIAN.—Similar to above except in color. 10c. oz., 20c. ¼ lb., 50c. lb.

BIG CARROTS.

From the Watkins Express, Watkins, N. Y.

"Mr. Bowers has on exhibition in his store a bushel-basket of carrots grown by Mr. Craft, Dr. S. B. Allen's gardener. The combined weight of twelve of these carrots makes a bushel. One of the carrots is fifteen inches and three-quarters of an inch in circumference, one foot long, and weighs nearly seven pounds. Upon being asked the reason of his success in gardening, Dr. Allen said it was due to the use of good seed, which for the last fifteen years he had purchased of Peter Henderson & Co., of New York. Dr. Allen further remarked that he thought farmers were generally too indifferent in regard to the quality of seed which they used, and that he had found it most economical in the end to purchase the best."

PARSNIP, LONG SMOOTH.—Excellent for dairy cows, possessing nutritive properties of the highest quality. (*See cut.*) 10c. oz., 15c. ¼ lb., 45c. lb.

LONG SMOOTH PARSNIP.

MANGEL WURZEL.

Mangels are the most important of all root crops for feeding, and may be grown in any part of the American continent on fairly good farm land; all that is necessary is good cultivation.

The best soil for Mangels is loose, friable loam and deep plowing. If expedient, follow the plow with a subsoil plow, and the crop will more than repay the extra trouble. The ground should be well enriched, and the seed sown in May in drills 24 inches apart in light soils, and 30 inches apart in strong, rich land; thin out the plants with a hoe to 9 inches apart in the former and 12 inches apart in the latter. 6 to 8 lbs. of seed are used per acre if sown with a drill, or double that quantity by hand. Cultivate with a horse hoe.

If by mail, add for postage at the rate of 8 cents per lb.

HENDERSON'S COLOSSAL LONG RED. The roots are smooth and regular, of the largest size and blood-red color. The quality is exceedingly nutritious, and in all respects this variety is most distinct and valuable. (*See cut.*) 40 cts. lb.; in lots of 10 lbs. and upward, 35 cts. per lb.

"I raised over 100 tons of your Colossal Long Red Mangel on 2 acres. In many cases three weighed over 100 lbs., the best crop I ever saw on an average, either in this country or in England."—JOHN HODGSON, Crystal Lake Farm, Paterson, N. J.

"From 5 lbs. of your Colossal Long Red Mangel I raised 944 bushels. One mangel weighed 22 lbs., one 21 lbs., and over 300 of them 18 lbs. each. Thoroughly rolling ground after planting is one of the great secrets of success."—J. J. KEATOR, Supt. Rathbun Farms, Ontario, Canada.

HENDERSON'S GIANT INTERMEDIATE. This is a variety between the Golden Tankard and Yellow Globe. It is larger than the Tankard, not such a rich golden color, but a heavier cropper. 35 cts. lb.; in lots of 10 lbs. and upward, 30 cts. lb.

GOLDEN TANKARD. The flesh is bright golden yellow, and in this respect differs from most other varieties, which cut white. Sheep have a preference for this sort over other Mangels; it is said that they will pick out every piece of Golden Tankard before touching others. It yields under the best cultivation 75 tons per acre. 35 cts. per lb.; in lots of 10 lbs. and upward, 30 cts. lb.

LONG RED. This variety is more generally grown for agricultural purposes than any other, producing roots of large size and excellent quality. 35 cts. lb.; in lots of 10 lbs. and upward, 30 cts. lb.

LONG YELLOW. Differs from the Long Red only in color. 35 cts. lb.; in lots of 10 lbs. and upward, 30 cts. lb.

HENDERSON'S CHAMPION YELLOW GLOBE. Smooth, globe-shaped roots, of large size and excellent quality, are the distinctive features of this variety. 35 cts. lb.; in lots of 10 lbs. and upward, 30 cts. lb.

YELLOW GLOBE. Roots of large size and globular form; very productive, keeps better than the Long Red, and is better adapted for growing in shallow soils. 35 cts. lb.; in lots of 10 lbs. and upward, 30 cts. lb.

HENDERSON'S RED GLOBE. A variety similar to the Yellow Globe in shape and size, and different only in color. 35 cts. lb.; in lots of 10 lbs. and upward, 30 cts. lb.

SUGAR BEET.

Sow 12 to 15 lbs. per acre. Yield, 20 to 25 tons per acre.

VILMORIN'S IMPROVED WHITE. A greatly improved variety of Sugar Beet, obtained by over 20 years' continued and systematic selection. The proportion of sugar in the roots, under ordinary circumstances, amounts to 18 to 20 per cent., while in other varieties the usual average is 12 to 15 per cent. Has yielded 30 tons and over per acre, and is unequaled for feeding cows and young stock. 25 cts. lb.; in lots of 10 lbs., 20 cts. lb.

KLEIN WANZLEBEN. Heavy yielder and easy to dig. Extensively grown both for sugar and stock feeding. 25 cts. lb.; in lots of 10 lbs., 20 cts. lb.

LANE'S IMPERIAL. An improved variety of the French Sugar Beet, obtained by careful selection in this country, and recommended as being hardier and more productive. 20 cts. lb.; in lots of 10 lbs., 15 cts. lb.

WHITE. Attains a large size, and is extensively grown for feeding; largely cultivated in France for the manufacture of sugar. 20 cts. lb.; in lots of 10 lbs., 15 cts. lb.

Ruta Bagas, Russian or Swedish Turnips.

Grow very rapidly, and yield from twenty-five to thirty-five tons per acre, in good, rich, deep soil, with proper cultivation. The Ruta Bagas proper should be sown in this latitude from May 25th to June 25th; while the smaller-growing turnips can be sown from July 1st to the middle of August. Sow 2 to 3 lbs. per acre.

Long Island Improved Purple-Top Ruta Baga.

This is undoubtedly the finest variety of purple-top Ruta Baga, and originated by one of our Long Island growers. It is twice the size of ordinary American stocks, and although size is usually got at the expense of quality, the quality is superior to any that we have tested. It is perfectly hardy. In a fair test on several Long Island farms, alongside some of the best European and American varieties, it produced almost twice the weight per acre of any other variety. (*See cut.*) 10 cts. oz.; 20 cts. per ¼ lb.; 55 cts. lb.

IMPROVED AMERICAN (Purple-Top).—An old leading variety; very hardy and productive; flesh yellow, solid, sweet and fine-flavored; equally good for stock or table use. 10 cts. oz.; 15 cts. ¼ lb.; 40 cts. lb.

LAING'S IMPROVED.—One of the earliest of the Ruta Bagas; keeps well; good for stock or table use; 5 cts. pkt.; 10 cts. oz.; 15 cts. ¼ lb.; 40 cts. lb.

LARGE WHITE FRENCH.—Flesh firm, white and solid; attains a large size, and has a very rich and sweet flavor; a very popular variety. 10c. oz.; 15c. ¼ lb.; 45c. lb.

Turnips

SPECIALLY ADAPTED FOR

STOCK FEEDING.

WHITE FLESHED.

PURPLE-TOP WHITE GLOBE.—One of the best early varieties grown; fine, thick globe-shape, of large size, rapid growth, and of extra fine quality; heavy cropper; in other respects similar to the Red Top Strap Leaf. It keeps well, and is unequaled for stock-feeding, table use or marketing. 10 cts. oz.; 15 cts. ¼ lb.; 40 cts. lb.

LONG WHITE OR COW HORN.—Matures very quickly; root shaped like a carrot, about half of which is formed above ground; flesh white, fine-grained and sweet, and of excellent quality. 10 cts. oz; 20 cts. ¼ lb.; 55 cts. lb.

YELLOW FLESHED.

YELLOW GLOBE.—One of the best varieties for general crop; flesh very firm and sweet, and keeps well until late in the spring; grows to a large size, and is excellent both for stock or table use. 10 cts. oz.; 15 cts. ¼ lb.; 40 cts. lb.

YELLOW ABERDEEN.—Very hardy and productive, good keeper; globe-shaped; color, pale yellow, with purple top. Very firm in texture, and closely resembling the Ruta Bagas in good-keeping qualities; good for table or stock. 10 cts. oz.; 15 cts. ¼ lb.; 45 cts. lb.

If desired by mail add 8 cts. per lb.

SEED POTATOES

Superior Northern-grown, especially for Seed.

(1 peck will plant about 125 hills; 10 to 12 bushels per acre, in drills 3 feet apart.)

Purchaser pays freight or express charges and assumes risk from freezing or heating. The barrel is 165 lbs. net weight.

EARLY VARIETIES

Bovee, Henderson's. (*See special description, page 41.*) 75c. peck, $2.50 bushel, $5.00 barrel.

Beauty of Hebron. A popular early sort and one of the best; red and white skin and pure white flesh; quality excellent; productive and a good keeper. 60c. peck, $2.00 bushel, $3.75 barrel.

Clark's Number 1. Earlier than Early Rose and very productive; cooks mealy. 60c. peck, $2.00 bushel, $4.00 barrel.

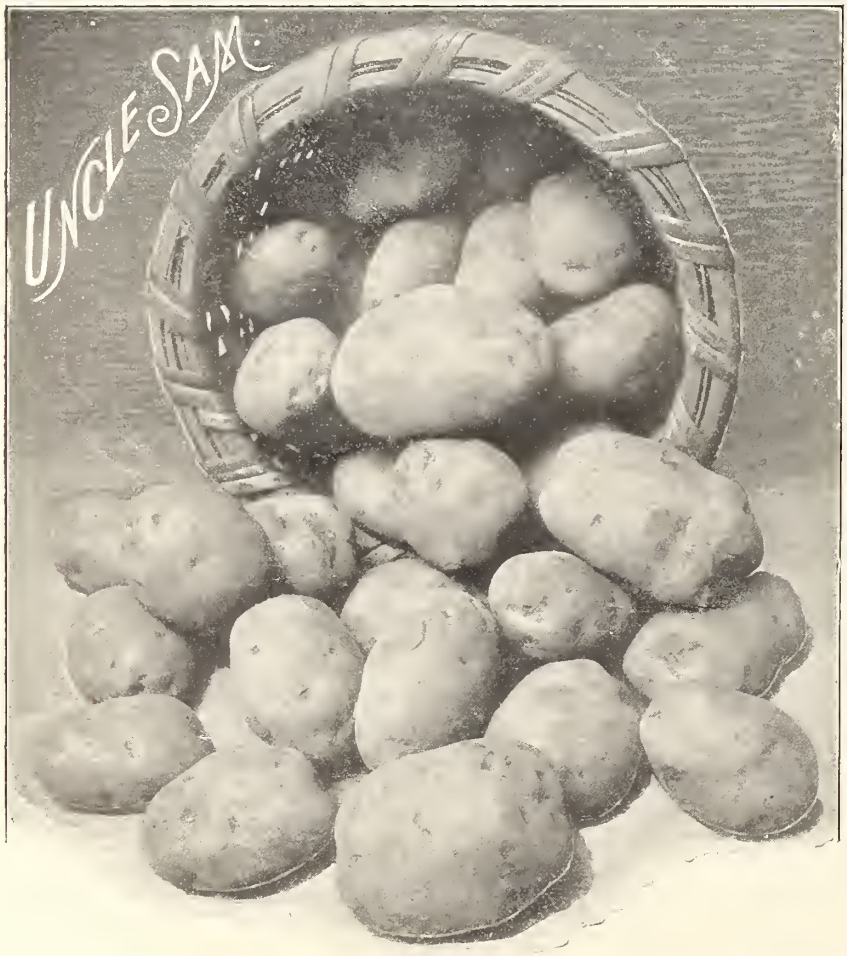
Early Ohio. Very early, almost round; flesh solid; cooks dry and mealy. 75c. peck, $2.25 bushel, $4.50 barrel.

Early Norther. A splendid, extra early; earlier than Early Rose, which it resembles, and exceedingly prolific; eyes few and shallow; unexcelled cooking qualities, dry and floury. 60c. peck, $2.00 bushel, $4.00 barrel.

Early Puritan, Henderson's. A distinct and valuable early variety; both skin and flesh white; quality superb, dry and floury. 70c. peck, $2.25 bushel, $4.50 barrel.

Early Rose. The popular standard early; noted for earliness, productiveness and fine quality. 60c. peck, $2.00 bushel, $3.75 barrel.

Rochester Rose. A seedling of Early Rose, which it resembles, but is an improvement over it; averages larger, heavier yielder, but not quite so early. 60c. peck, $2.00 bushel, $4.00 barrel.



MAIN CROP VARIETIES

Cambridge Russet. A handsome, main crop variety; a healthy, strong grower; skin russet colored, heavily netted; cooking qualities superb. 60c. peck, $2.00 bushel, $4.00 barrel.

Carman No. 3. Enormously prolific, averaging nearly a pound apiece; very uniform in shape, white skinned, few and shallow eyes; flesh snow-white and of exceptionally fine cooking qualities. 60c. peck, $2.00 bushel, $3.75 barrel.

Ideal. A heavy-yielding, medium early, of healthy, stocky growth; a handsome Potato, with pinkish russet skin; flesh white and floury; splendid keeper. 70c. peck, $2.25 bushel, $4.50 barrel.

Late Puritan, Henderson's. A handsome, large, white-skinned Potato, and one of the best lates grown; heavy yielder, good keeper; cooking qualities superior. 70c. peck, $2.00 bushel, $4.25 barrel.

Queen. A grand, early Potato, resembling Beauty of Hebron in color, shape and size, but is much earlier and a heavy cropper. 60c. peck, $2.00 bushel, $4.00 barrel.

Sir Walter Raleigh, Henderson's. A grand, main crop Potato; shape very uniform, large and oval; flesh fine grained, snow-white, cooking dry and floury; splendid keeper. 75c. peck, $2.25 bushel, $4.50 barrel.

"I am of a decided opinion that 'Sir Walter Raleigh' will be the coming Potato for main crop. It has certainly far exceeded my expectations."
J. L. CONOVER, Wickatunk, Monmouth Co., N. J.

"The 'Sir Walter Raleigh' is a great yielder; all large Potatoes, no small ones; vines grow strong and upright."
C. W. BEARDSLEY, Milford, Conn.

Uncle Sam, Henderson's. One of the handsomest Potatoes grown; luxuriant, healthy grower, outyielding all other varieties; shape and size wonderfully uniform; a superior keeper, quality extra. 70c. peck, $2.00 bushel, $4.25 barrel.

"I am happy to state that we like your 'Uncle Sam' Potatoes very much. Their table quality is unsurpassed, and they outyielded every other variety we planted."
AMOS G. GRAY, North Cambridge, Mass.

"I bought ten pounds of your 'Uncle Sam,' and it has proved to be a good yielder with me. I have twenty-one bushels grown from the ten pounds of seed."
GUY W. CRAWFORD, Letcher, S. Dakota.

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Henderson's "Bovee" Potato

HENDERSON'S "BOVEE" is praised in AMERICA.

"The 'Bovee' is the best frame Potato I know of. Its eating quality is extra fine."—N. BUTTERBACH, Gardener to C. N. BLISS, Esq.

"The 'Bovee' is the best early Potato we have. It was the best and earliest among ten varieties."—S. O. BENJAMIN, Aquebogue, L. I.

"The 'Bovee' is at least twelve days earlier than Early Ohio. The almost perfect shape of the 'Bovee' would win the prize every time over the poorly shaped Early Ohio. Will yield more per acre, with a smaller proportion of unmarketable tubers."—THE RURAL NEW-YORKER.

"Uncommonly prolific for such an early variety."—OHIO AGRICULTURAL EXPT. STATION.

"Yielded at a rate above any other in trial, and a very promising new variety."—MASSACHUSETTS AGRICULTURAL EXPT. STATION.

"The 'Bovee' is exceptionally promising."—MINNESOTA AGRICULTURAL EXPT. STATION.

"I was very much pleased with the 'Bovee' Potatoes I ordered from you last year. They yielded better than any potato I ever planted."—MRS. J. P. FEARS, Athens, Ga.

HENDERSON'S "BOVEE" POTATO.

A Marvel in Quality! White, dry and mealy.

A Marvel in Earliness! The earliest of all.

A Marvel in Yield! Outyielding all of the Earlies, and equaling the heaviest cropping Lates.

A Marvel in Uniform Size and perfect shape.

A Marvel of Popularity in Europe and America.

WHEN we introduced Henderson's **"Bovee" Potato**, our own tests and the opinions of others led us to claim a good deal for it, and our confidence has not been misplaced. Not only is it the earliest, but it takes a leading place among the heavy cropping varieties, **an unusual thing among first earlies.** It is even **earlier than Early Ohio**, and compares favorably with Triumph, a light-cropping variety that has only extreme earliness to recommend it, while the **"Bovee" in all competitive trials has outyielded all the early Potatoes**, and in many of the tests conducted by Experiment Stations and private growers **it has outyielded** even the late varieties. The vine is dwarf and stocky, enabling it to be planted six inches closer than nearly all other varieties, which results in a much larger return per acre, and is a feature of the utmost value where land is valuable. The tubers grow remarkably close, all bunched together in the hill close up to the vine. They size up to a marketable size more evenly than any Potato we ever saw; none too large or too small; practically the whole crop being merchantable and the quality is perfect. We have only one warning—it is apt to prove disappointing on poor soil or with poor cultivation, as it sets so freely the tubers are apt to be small. But on good Potato ground, well fertilized and cultivated, no other early Potato to-day compares with it.

PRICE OF HENDERSON'S BOVEE POTATO:

75c. peck, $2.50 bushel, $5.00 barrel of 165 lbs. net weight,

by express or freight, at purchaser's expense.

HENDERSON'S "BOVEE" is praised in EUROPE.

From England.—*"It is very early and quite white and dry."*—JOHN CROOK, Forde Abbey Gardens.

From Germany.—*"Of a fine oval form and almost all of a uniform medium size, fit for table use. Was ripe ten days sooner than Early Rose and a week earlier than our Improved Six Weeks."*—HAAGE & SCHMIDT, Erfurt.

From Sweden.—*"'Bovee' is a most valuable addition to the many you have sent out. I had a splendid crop of the finest quality, and it is the best this season out of thirty sorts."*—SVENSONS FROHANDEL, Stockholm.

From Italy.—*"Your 'Bovee' Potato will become the leading variety in our country. I found them far superior to any of the numerous varieties I have tried to this day. The plant is strong and very healthy."*—GUISEPPE SADA, Milan.

From Holland.—*"The crop was simply marvellous, and there does not exist here a heavier cropping variety. It not only excels in earliness and beautiful shape of the tubers, but the flavor is also excellent."*—L. VAN WAVEREN & Co., Hillegom.

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ESPECIALLY RIPENED, Harvested and Selected FOR SEED PURPOSES.

In offering the following varieties of Cotton, we desire to call attention to the fact **that all have been ripened and harvested for seed purposes, carefully selected and kept true to name.** The value of the crop very largely depends on uniformity of the staple, and for export we advise that selected seed be used. The large quantities of seed which come from the public mills are invariably more or less mixed and should never be used for seed purposes. The sorts we offer have all been tested at the government experiment stations and have been highly reported upon, as possessing all the essential qualities of really good Cottons.

UPLAND VARIETIES.

ALLEN'S SILK LONG STAPLE. A long staple variety of great merit, and headed the list until the introduction of Cook's famous new variety. It is a good cropper and the quality of the lint is only excelled by The Cook and Sea Island. 14c. per lb.; 100 lbs., 10c. per lb.; 1,000 lbs., 8c. per lb.

BOHEMIAN. This is a big boll storm-proof variety with a very fine staple. The bolls are easily gathered on account of their immense size. The plant is very thrifty and averages more Cotton per acre than any other variety. 14c. per lb.; 100 lbs., 10c. per lb.; 1,000 lbs., 8c. per lb.

COOK'S SILK LONG STAPLE. A selection of Upland Cotton, surpassing all others for fineness and length of staple, and is sure to prove of inestimable value to any country desiring to bring their cotton product up to the highest standard of quality. The Cook Cotton has invariably brought double the market price and found ready buyers, and we would here call particular attention to the fact that **the higher the grade of long staple Cotton, the greater is the premium it will bring over and above the ordinary run.** In other words, while the staple itself commands a certain premium, the increase in premium is very much greater as the quality or grade of the Cotton improves. 14c. per lb.; 100 lbs., 10c. per lb.; 1,000 lbs., 8c. per lb.

DOUGHTY'S LONG STAPLE. An excellent long stapled variety, the staple often attaining a length of one and three-quarter inches. The stalk is long-limbed and branching, yields a heavy crop and produces a high percentage of lint of the finest quality. 14c. per lb.; 100 lbs., 10c. per lb.; 1,000 lbs., 8c. per lb.

EXCELSIOR PROLIFIC. An immensely prolific variety, large bolls, small seed with a superior lint and staple. Clusters well round the stalk, with only a few limbs near the bottom. Withstands drought better than any other variety. 14c. per lb.; 100 lbs., 10c. per lb.; 1,000 lbs., 8c. per lb.

GRIFFIN'S IMPROVED. A long and fine staple, the latter often one and a half to two inches long, and the fibre is very strong. For an Upland long staple it is extremely early, and can be planted from 10 to 15 days earlier than most varieties. 12c. per lb.; 100 lbs., 8c. per lb.; 1,000 lbs., 7c. per lb.

HAWKIN'S PROLIFIC. A strong-growing variety; yields a large crop of good quality and is well adapted for growing on hilly lands. 12c. per lb.; 100 lbs., 8c. per lb.; 1,000 lbs., 7c. per lb.

KING'S IMPROVED. A strong-growing variety which yields wonderful crops. Being of a rugged and strong constitution, it is of the easiest culture and should be included in all experimental collections. The staple is of good quality though not quite so fine as some other varieties, but the introducer claims that this is more than overcome by the enormous crops which it yields. 12c. per lb.; 100 lbs., 8c per lb.; 1,000 lbs., 7c. per lb.

PETERKIN IMPROVED. A favorite variety, fruiting continually throughout the season and producing a large yield of good quality. 12c. per lb.; 100 lbs., 8c. per lb.; 1,000 lbs., 7c. per lb.

RUSSELL'S BIG BOLL. A most reliable variety, medium early and very heavy. A fine type of big boll, highly recommended for the excellent quality of its lint. 12c. per lb.; 100 lbs., 8c. per lb.; 1,000 lbs., 7c. per lb.

SHINE'S EARLY PROLIFIC. One of the earliest Cottons, and can be grown farther north than any other. It bears well, but the staple is only medium. Its great merit, however, is its extreme earliness. (*See cut.*) 15c. per lb.; 100 lbs., 12c. per lb.; 1,000 lbs., 10c. per lb.

TRUITT'S BIG BOLL. This is a distinct variety, with big seeds and big bolls, making gathering easy. It is largely grown by some of the most scientific farmers in Georgia. 12c. per lb.; 100 lbs., 8c. per lb.; 1,000 lbs., 7c. per lb.

SEA ISLAND COTTON.

The Sea Island is quite distinct from all the Upland varieties. When the conditions are right it produces the finest quality of Cotton known and commands a much higher price than the Upland varieties; even Cook's new variety falls short several cents per lb. It reaches its greatest perfection when grown on the small islands on the Atlantic Coast, from Florida to Virginia, though it can be successfully grown on the low-lying seacoast of the mainland. Grown further inland, it rapidly deteriorates in quality and yield, and soon becomes unprofitable, and it should therefore always be sown near the seacoast. Where the conditions are right the Sea Island should be grown to the exclusion of the Upland varieties.

Sea Island Cotton: Price, extra selected, 10c. per lb.; 100 lbs., 7c. per lb.; 1,000 lbs., 6c. per lb.

We can also supply and on application quote cheaper grades of the above or any other variety.

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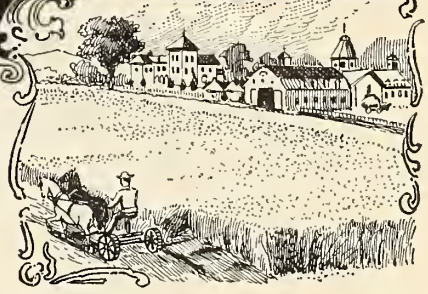

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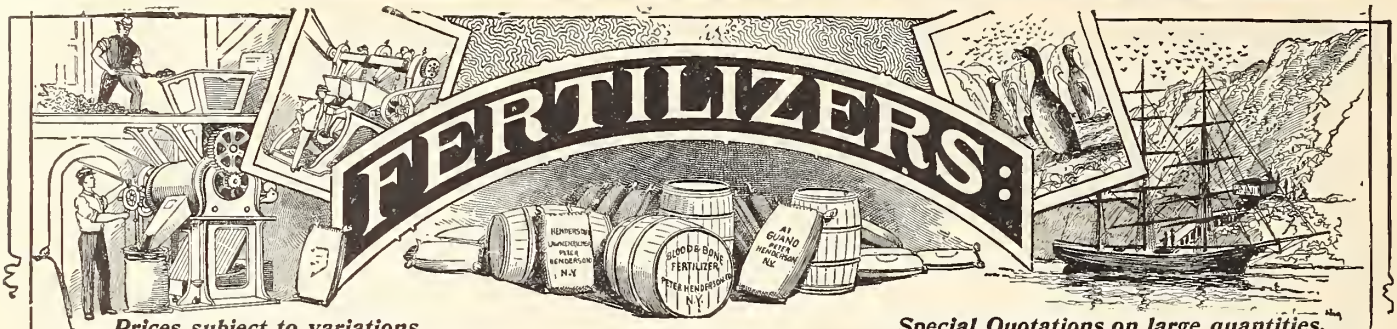

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Decompose slowly in the soil and, therefore, form excellent permanent improvement, being less likely than almost any other kind of manure to waste in rainy seasons, particularly on sandy soils. There is no danger of burning the plants, whether applied as top-dressing or directly to the roots. Excellent for top-dressing lawns and grass lands, for garden and field crops.

Quantity required. *For permanent pasture and mowing lands, ½ to 1 ton per acre. For trees and vines, 2 to 4 quarts each. For top-dressing, 1,000 to 1,500 lbs. per acre. For field and garden crops, ¾ to 1 ton broadcasted and harrowed in. For rose beds, pot plants, etc., one part to about fifty of soil.*

Raw Bone Meal. This is ground very fine, decomposes more rapidly in the soil than the coarser grades, and is, therefore, more quickly beneficial.

ANALYSIS: *1 ton contains 74 lbs. nitrogen, 170 lbs. phosphoric acid, 2 lbs. potash; all available.*

PRICE, 1 lb. package, 10c. (*or by mail, 25c. per lb.*); 5 lb. package, 30c.; 10 lb. package, 50c.; 25 lb. bag, $1.00; 50 lb. bag, $1.50; 100 lb. bag, $2.50; 200 lb. bag, $4.25; per ton of 2,000 lbs., $36.00.

Raw Ground Bone. This is moderately fine and particularly adapted for general fertilizing; the finer particles are immediately beneficial, the coarse keeping up the supply of plant food for a long period.

ANALYSIS: *1 ton contains 66 lbs. nitrogen, 160 lbs. phosphoric acid, 2 lbs. potash; all available.*

PRICE, per 100 lb. bag, $2.25; 200 lb. bag, $4.00; per ton of 2,000 lbs., $34.00.

Raw Crushed Bone. Slow but permanent in action, indispensable in the preparation of grapevine borders—for fruit trees, small fruits, etc.—where a lasting fertilizer is required.

ANALYSIS: *1 ton contains 66 lbs. nitrogen, 160 lbs. phosphoric acid, 2 lbs. potash; all available.*

PRICE, per 100 lb. bag, $2.75; 200 lb. bag, $5.00; per ton of 2,000 lbs., $45.00.

Dissolved Bone with Potash. This is pure, fine bone, treated with a sufficient quantity of sulphuric acid to make it more immediately available for plant food, where quick action is required, and soluble potash is added, making it a fine and dry fertilizer of excellent mechanical condition for hill and drill use.

ANALYSIS: *1 ton contains 30 lbs. nitrogen, 200 lbs. phosphoric acid, 30 lbs. potash; all available.*

PRICE, 100 lb. bag, $1.75; 200 lb. bag, $3.25; per ton of 2,000 lbs., $31.00.

Quantity Required. If drilled in, 300 to 400 lbs. per acre; broadcasted and harrowed in, 500 to 600 lbs. per acre.

BONE SUPERPHOSPHATE.

Benefits crops quickly, readily available, promoting early maturity, affording constant nourishment during their entire season's growth. In case of rotation of crop it is nearly as valuable for the last as for the first.

ANALYSIS: *1 ton contains 22 lbs. nitrogen, 200 lbs. phosphoric acid, 50 lbs. potash; all available.*

Quantity Required. *For garden and field crops, 500 to 600 lbs. per acre; for garden crops it is best drilled in at seed-sowing time. For top-dressing grass, 600 lbs. per acre.*

PRICE, per 100 lb. bag, $2.00; per bag of 200 lbs., $3.50; per ton of 2,000 lbs., $32.00.

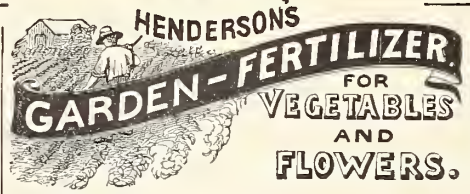
BLOOD AND BONE.

A very concentrated source of nitrogen, yielding ammonia, etc., by gradual decomposition, and, in consequence, is superior for immediate as well as for prolonged results; it is of exceptional value for garden crops, root crops, corn, grain, grasses, fruit trees, small fruits, grape vines, and, in fact, all kinds of vegetation.

ANALYSIS: *1 ton contains 98 lbs. nitrogen, 220 lbs. phosphoric acid, 1 lb. potash; all available.*

Quantity Required. *When broadcasted and harrowed in use from ½ to 1 ton per acre. For garden crops drill in 300 to 500 lbs. per acre.*

PRICE, per 100 lb. bag, $2.25; 200 lb. bag, $4.00; per ton of 2,000 lbs., $36.00.



Strictly high-grade, containing all of the elements needed by vegetables and flowers for their quick growth, early maturing and perfect development. The ingredients are quickly soluble and immediately commence to feed the plants, stimulating them into healthy, luxuriant growth, and it continues to feed them until the end of the season.

Highly concentrated, fine, dry and free from objectionable odor, easily applied, either before or after planting, by sprinkling over the surface of the soil and raking in; or it can be mixed with water (*stirring well*) and applied as a liquid manure. If something especially fine in vegetables or flowers is desired, two or three additional applications, made at intervals, will produce magnificent results. A 10 lb. package is sufficient for a space 15x20 ft. for one application, or 500 to 600 lbs. per acre. Instructions on each package.

ANALYSIS: *1 ton contains 98 lbs. nitrogen, 180 lbs. phosphoric acid, 150 lbs. potash; all available.*

PRICE, 5 lb. package, 25c.; 10 lb. package, 45c.; 25 lb. bag, $1.00; 50 lb. bag, $1.75; 100 lb. bag, $3.00; 200 lb. bag, $5.00; per ton, $45.00.

A safe, clean and high-grade fertilizer, free from disagreeable odor, prepared especially for feeding plants grown in pots. It is a wonderful invigorator, producing luxuriant, healthy growth, foliage of rich texture and larger and more brilliant flowers.

It contains in a highly concentrated form all of the ingredients of plant food essential to the highest development of plants and flowers. It is very soluble and is readily assimilated, so that marked improvement is usually noticed in ten days' time. It is fine and dry, clean and easy to apply, either sprinkled over the surface of the soil as a top-dressing, or dissolved in water (*stirring well*). Detailed directions on each package.

PRICE, 1 lb. package, sufficient for 25 ordinary sized plants for 1 year, 20c.; or by mail, 35c.

Pure Pulverized Sheep Manure.

A pure, natural manure, and most nutritious for plants. Its effect is immediate and lasting. Excellent for mixing with the soil for greenhouse plants (one part manure and six parts soil). Strewn over and dug into the vegetable garden, or placed directly in drills or hills, it promotes a rapid, steady growth until maturity. It makes a rich, safe and quick Liquid Manure; one pound to five gallons of water can be used daily, if necessary, with safety.

ANALYSIS: *1 ton contains 42 lbs. nitrogen, 30 lbs. phosphoric acid, 50 lbs. potash.*

PRICE, 100 lb. bag, $2.00; per ton of 2,000 lbs., $30.00. In packages of 2 lbs., 15c.; 10 lbs., 50c.; by mail, 15c. lb. extra.

Quantity Required. *For garden and field crops 1 to 2 tons per acre; ½ before plowing, the balance before harrowing. For top-dressing grass, use at least 1 ton per acre, applied in fall or very early spring.*

ASHES.

Canada Unleached Hard Wood. Contain all fertilizing elements except nitrogen. It drives away insects, improves the texture of the soil, and is indispensable for all crops requiring potash; very beneficial for garden and field crops, and is of high value for cabbage, potatoes, onions, strawberries, fruit trees, corn, clover, wheat, beans, grass lands and lawns.

ANALYSIS: *1 ton contains (no nitrogen) 20 lbs. phosphoric acid, 120 lbs. potash; all available.*

Quantity Required. *Apply 1 to 2 tons per acre, as one heavy application will help much more than the same quantity would, applied in fractions.*

PRICE, per bbl. of about 200 lbs., $2.00; per ton of 2,000 lbs., in bbls., $18.00. Special prices in bulk.

NITRATE OF SODA.

Valuable solely for the nitrogen it contains, equal to twenty per cent. of ammonia. It is chiefly a stimulant; it is used in addition to other fertilizers. It is very quick in action and hastens the maturity of crops.

ANALYSIS: *1 ton contains 150 lbs. soluble nitrogen; no phosphoric acid nor potash.*

Quantity Required. *Being extremely soluble it should not be applied until the plants are above ground, when 100 to 500 lbs. per acre, mixed with wood ashes or land plaster, for convenience in applying, are generally used.*

PRICE, per 5 lb. package, 30c.; 10 lb. package, 50c.; 25 lb. bag, $1.25; 50 lb. bag, $2.00; 100 lb. bag, $3.50; per ton, apply.

Imported Scotch Soft Coal Soot.

A stimulating fertilizer, increasing luxuriance of growth, and its soluble dioxide of iron quickly affects the *chlorophyll* or coloring matter of the foliage and flowers, giving them richness and brilliancy. This grade of soot is also of great value mixed in the soil near the surface to drive away slugs, grubs, cut-worms, etc. Of great value in gardens troubled with onion and other maggots.

Quantity Required. *Strew it liberally in the drills or hills before the planting. A later application should be made on the surface and raked in.*

PRICE, 10 lbs., 50c.; 25 lbs., 1.25; 100 lbs., $4.00.

Kainit, or German Potash Salt.

Used chiefly for its potash value, and it contains about 30 per cent. salt. The combination of these two ingredients renders it useful, when intelligently applied, for destroying insects in the soil, such as slugs, cut-worms, wire-worms, maggots, etc.

ANALYSIS: *1 ton contains about 260 lbs. soluble potash.*

PRICE, $2.00 per 100 lbs.; for larger quantities apply.

Sulphate of Potash. High grade, the highest and purest form of agricultural potash used in the preparation of fertilizers. 1 ton contains about 1,000 lbs. soluble potash.

PRICE, $3.50 per 100 lbs.; for larger quantities apply.

Bone Black, Dissolved.

One of the principal ingredients supplying phosphoric acid, used in the preparation of fertilizers. 1 ton contains about 320 lbs. available phosphoric acid.

PRICE, $1.85 per 100 lbs.; for larger quantities apply.

Land Plaster or Gypsum.

Valuable for soils requiring lime and sulphates; often good on grass-lands and sour soils. The fertilizing action is not so much due to its value as a plant food as the power it possesses of absorbing and freeing ammonia, and converting the plant foods of the soil into soluble form so they can be utilized by the crop.

ANALYSIS: *1 ton contains about 650 lbs. of lime and 930 lbs. of Sulphuric acid.*

PRICE, $1.50 per bbl. of 250 lbs.; $11.00 per ton.

MAPES' CELEBRATED FERTILIZERS.

The highest grade commercial fertilizers in the U. S., their bases being bone, no rock, horn, leather, marl or other inferior ingredients being used in their composition. All fertilizing constituents, nitrogen, potash and phosphoric acid, are strictly high-grade and soluble; all are absolutely free from muriates (or chlorides). Mapes' Catalogue, telling how to use these fertilizers, we mail free on application.

COMPLETE MANURE, "A" BRAND. *(Use 400 to 800 lbs. per acre.)*
Price, $2.00 per 100 lb. bag; $3.75 per 200 lb. bag; $35.00 per ton.
Specially adapted for use in *hill* or *drill* on all crops, particularly in connection with farm manures. Fine for peas, beans, buckwheat and turnips.
ANALYSIS: *1 ton contains 50 lbs. nitrogen (3 to 4 per cent. ammonia), 220 lbs. phosphoric acid, 50 lbs. potash; all available.*

COMPLETE MANURE FOR GENERAL USE. *(Use 400 to 800 lbs. per acre.)*
Price, $2.25 per 100 lb. bag; $3.85 per 200 lb. bag; $37.00 per ton.
A substitute for stable manure. For use on all crops and all soils with or without stable manure. Use broadcast; if any in hills, use sparingly. Special for oats, Hungarian grass, vegetables, melons, tomatoes and seeding, with or without grain.
ANALYSIS: *1 ton contains 66 lbs. nitrogen (4 to 5 per cent. ammonia), 180 lbs. phosphoric acid, 80 lbs. potash; all available.*

COMPLETE MANURE FOR HEAVY SOILS. *(Use 500 to 1,000 lbs. per acre.)*
Price, $2.50 per 100 lb. bag; $4.25 per 200 lb. bag; $40.00 per ton.
For *any soils* where *small* quantity of potash but large quantities of ammonia and phosphoric acid are required. It is very safe for use around young plants, nursery stock, strawberry vines. It is very forcing, more so than the Orange Tree Manure. Special for early turnips. May be used for oats, hops, barley, also as a top-dressing for grass, and as a forcing manure for all vegetables and fruits at all times.
ANALYSIS: *1 ton contains 98 lbs. nitrogen (ammonia, 6 to 7 per cent.), 160 lbs. phosphoric acid, 60 lbs. potash; all available.*

VEGETABLE MANURE, OR COMPLETE MANURE FOR LIGHT SOILS.
(Use ½ to 1 ton per acre.) Price, $2.50 per 100 lb. bag; $4.50 per 200 lb. bag; $42.00 per ton.
This is our special manure on all kinds of soils, for truck, early vegetables, onions, celery, tomatoes, also on light soils for oats, hops and barley. All vegetables require liberal supplies of soluble potash, and in the proper forms. Even with heavy or clay soils the natural supplies of potash are insufficient.
ANALYSIS: *1 ton contains 98 lbs. nitrogen (ammonia, 6 to 8 per cent.), 120 lbs. phosphoric acid, 120 lbs. potash; all available.*

CEREAL BRAND FOR FARM CROPS. *(Use 600 to 1,000 lbs. per acre.)*
Price, $1.75 per 100 lb. bag; $3.00 per 200 lb. bag; $29.00 per ton.
For wheat, rye, corn, oats, buckwheat, and all farm crops, particularly where farm manures are used. Specially adapted for use in hill or drill.
ANALYSIS: *1 ton contains 32 lbs. nitrogen (ammonia, 2 to 3 per cent.), 140 lbs. phosphoric acid, 60 lbs. potash; all available.*

AVERAGE SOIL COMPLETE MANURE. *(Use 500 to 1,000 lbs. per acre.)*
Price, $2.00 per 100 lb. bag; $3.75 per 200 lb. bag; $36.00 per ton.
For onions, tomatoes, vegetables of all kinds, Irish and sweet potatoes, fruits and cranberries. A substitute for stable manure. Special for tobacco on heavier soils.
ANALYSIS: *1 ton contains 82 lbs. nitrogen (ammonia, 5 to 6 per cent.), 140 lbs. phosphoric acid, 120 lbs. potash; all available.*

CAULIFLOWER AND CABBAGE MANURE. *(Use 800 to 1,600 lbs. per acre.)*
Price, $2.25 per 100 lb. bag; $4.00 per 200 lb. bag; $38.00 per ton.
Contains the elements of their food in well-balanced proportions to produce maximum crops of superior quality, whiteness and firmness.
ANALYSIS: *1 ton contains 82 lbs. nitrogen (ammonia, 5 to 6 per cent.), 120 lbs. phosphoric acid, 120 lbs. potash; all available.*

CORN MANURE FOR FIELD CORN. *(Use 600 to 800 lbs. per acre.)*
Price, $2.25 per 100 lb. bag; $3.75 per 200 lb. bag; $35.00 per ton.
Sweet corn, fodder corn, Hungarian grass, millet, late turnips, late cabbage and seeding to grass.
ANALYSIS: *1 ton contains 50 lbs. nitrogen (ammonia, 3 to 3½ per cent.), 180 lbs. phosphoric acid, 120 lbs. potash; all available.*

FRUIT AND VINE MANURE. *(Use 600 to 1,000 lbs. per acre.)*
Price, $2.50 per 100 lb. bag; $4.25 per 200 lb. bag; $40.00 per ton.
For insuring fruiting power, particularly in quality of fruit in vineyards (grapes), pears, apples, plums, strawberries, and all small fruits. Is slow in effects, but lasting.
ANALYSIS: *1 ton contains 32 lbs. nitrogen (ammonia, 2 to 3 per cent.), 140 lbs. phosphoric acid, 200 lbs. potash; all available.*

ORANGE AND FRUIT TREE MANURE. *(Use 600 to 2,000 lbs. per acre.)*
Price, $2.25 per 100 lb. bag; $4.00 per 200 lb. bag; $38.00 per ton.
Promotes wood growth and fruiting for all fruit trees.
ANALYSIS: *1 ton contains 66 lbs. nitrogen (ammonia, 4 to 5 per cent.), 160 lbs. phosphoric acid, 60 lbs. potash; all available.*

GRASS AND GRAIN SPRING TOP-DRESSING. *(Use 400 to 600 lbs. per acre.)*
Price, $2.50 per 100 lb. bag; $4.25 per 200 lb. bag; $41.00 per ton.
For all kinds of grasses and pastures, mowing lands, clover, wheat, oats, rye and all grain crops on good land.
ANALYSIS: *1 ton contains 98 lbs. nitrogen (ammonia, 6 to 7 per cent.), 100 lbs. phosphoric acid, 140 lbs. potash; all available.*

POTATO MANURE. *(Use 600 to 2,000 lbs. per acre.)*
Price, $2.25 per 100 lb. bag; $4.00 per 200 lb. bag; $39.00 per ton.
For Irish and sweet potatoes, also for asparagus, early vegetables, tomatoes, sugar beets, fruits, sorghum, sugar cane, sweet corn, etc.
ANALYSIS: *1 ton contains 74 lbs. nitrogen (ammonia, 4½ to 5 per cent.), 160 lbs. phosphoric acid, 120 lbs. potash; all available.*

TOBACCO MANURE, WRAPPER BRAND. *(Use 1,000 to 2,000 lbs. per acre.)*
Price, $2.75 per 100 lb. bag; $5.00 per 200 lb. bag; $47.00 per ton.
For growing superior quality of leaf, particularly for wrappers.
ANALYSIS: *1 ton contains 124 lbs. nitrogen (ammonia, 7½ per cent.), 80 lbs. phosphoric acid, 210 lbs. potash; all available.*

TOBACCO STARTER, IMPROVED. *(Use 1 ton per acre.)*
Price, $2.00 per 100 lb. bag; $3.85 per 200 lb. bag; $36.00 per ton.
Promotes not only early vigorous growth, but earlier maturity of crop. The earlier grown and fully matured tobacco cures in lighter and brighter colors. Also for tobacco beds.
ANALYSIS: *1 ton contains 82 lbs. nitrogen (ammonia, 5 to 6 per cent.), 130 lbs. phosphoric acid, 80 lbs. potash; all available.*

The Approximate Quantities of the Three Essential Fertilizing Elements

Taken From the Soil by Garden, Field and Fruit Crops.

An aid in estimating the kind and quantity of fertilizer to apply.

A GOOD CROP of the undermentioned.	YIELDING on one acre.	WOULD CONSUME Nitrogen.	Phosphoric Acid.	Potash.
Garden Vegetables { Average of 20 kinds	..... = 24,357 lbs.	99 lbs.	46 lbs.	94 lbs.
Alfalfa, hay	5 tons = 10,000 "	230 "	53 "	146 "
Apple, fruit	600 bu. = 28,800 "	36 "	8½ "	54 "
" new tree growth	..... = 12,000 "	42 "	7½ "	20½ "
Asparagus, sprouts	..... = 12,500 "	40 "	11 "	15 "
Barley, grain	30 bu. = 1,440 "	23 "	8 "	4 "
" straw	..... = 2,000 "	12 "	3½ "	21 "
Beans, Soja, green fodder	10 tons = 20,000 "	58 "	30 "	106 "
" " dry "	5 tons = 10,000 "	232 "	67 "	108 "
" Garden, string	25 bu. = 1,500 "	58 "	14 "	18 "
" " straw	..... = 2,800 "	.....	11 "	35 "
Beets, roots	400 bu. = 24,000 "	57 "	21 "	105 "
" leaves	4 tons = 8,000 "	24 "	8 "	36 "
Blackberries, fruit	2,500 qts. = 2,500 "	3½ "	2 "	5 "
Buckwheat, grain	30 bu. = 1,440 "	20 "	8 "	3½ "
" straw	1 ton = 2,000 "	26 "	12 "	48 "
Cabbage	..... = 50,000 "	150 "	55 "	215 "
Cauliflower	..... = 30,000 "	120 "	48 "	108 "
Carrot, roots	500 bu. = 25,000 "	55 "	27 "	75 "
" tops	.. .. = 6,000 "	30 "	6 "	17 "
Celery	..... = 30,000 "	72 "	66 "	228 "
Cherries, fruit	350 bu. = 14,000 "	.....	8½ "	28 "
Clover, Red, cured hay	2½ tons = 5,000 "	122 "	34 "	126 "
" Crimson, "	2¼ tons = 4,500 "	87 "	16 "	52 "
Corn, Field, ears	125 bu. = 8,750 "	123 "	49 "	41 "
" " stover	4 tons = 8,000 "	89 "	24 "	105 "
" Fodder, green	18 tons = 36,000 "	147 "	54 "	136 "
" " dry	6 tons = 12,000 "	211 "	64 "	106 "
" Sweet, green ears	75 bu. = 5,250 "	17 "	3 "	12 "
" " " stover	5 tons = 10,000 "	46 "	11 "	32 "
Cucumber, fruit	..... = 24,000 "	38 "	28 "	57 "
Currants, Red, fruit	100 bu. = 4,000 "	.....	3½ "	7½ "
Egg Plant, fruit	..... = 20,000 "	.....	.....	.....
Grape, fruit	3 tons = 6,000 "	10 "	8 "	30 "
" new vine growth	..... = 6,750 "	28 "	9½ "	28 "
Grass, Mixed, Pasture, green	6 tons = 12,000 "	86 "	22 "	97 "
" " hay	3 tons = 6,000 "	114 "	30 "	133 "
" Kentucky Blue, hay	1 ton = 2,000 "	23½ "	8 "	31½ "
" Timothy, hay	1½ tons = 3,000 "	30 "	15 "	42 "
" Orchard, hay	2½ tons = 5,000 "	65 "	18½ "	84½ "
Kohl Rabi	500 bu. = 25,000 "	120 "	67 "	107 "
Lettuce	..... = 15,000 "	23 "	15 "	58 "
Mangels, roots	25 tons = 50,000 "	95 "	45 "	190 "
" leaves	..... = 18,900 "	54 "	18 "	81 "
Melon, Musk, fruit	5 tons = 10,000 "	.....	.....	.....
" Water, fruit	8 tons = 16,000 "	.....	.....	.....
Millet, Golden, green	8 tons = 16,000 "	97 "	30 "	65 "
" " hay	3 tons = 6,000 "	76 "	29 "	101 "
" Japanese, green	15 tons = 30,000 "	159 "	60 "	102 "
" " hay	6 tons = 12,000 "	133 "	48 "	146 "
Oats, grain	50 bu. = 1,600 "	28 "	10 "	7½ "
" straw	..... = 2,600 "	14 "	7 "	42 "
Onion, bulbs	500 bu. = 28,000 "	75 "	36 "	70 "
Orange, fruit	..... = 112,000 "	212 "	89 "	537 "
Parsnip, roots	650 bu. = 30,000 "	162 "	57 "	186 "
" tops	..... = 10,000 "	29 "	8 "	25 "
Peaches, fruit	900 bu. = 30,000 "	.....	15 "	75 "
" new tree growth	..... = 6,000 "	54 "	13 "	30 "
Peas, Garden, seeds	25 bu. = 1,500 "	53 "	12 "	15 "
" " straw	..... = 3,600 "	37 "	12 "	35 "
" Field, cow, green plants	8 tons = 16,000 "	46 "	16 "	49 "
" " " dry plants	4 tons = 8,000 "	156 "	41 "	117 "
Pears, fruit	600 bu. = 28,800 "	17 "	14 "	51 "
Plums, fruit	500 bu. = 20,000 "	36 "	8 "	48 "
Potatoes, tubers	300 bu. = 18,000 "	61 "	28 "	104 "
" tops	... . = 6,000 "	29 "	9½ "	25 "
" Sweet, tubers	350 bu. = 19,250 "	46 "	15 "	71 "
" " vines	..... = 10,000 "	42 "	7 "	73 "
Pumpkins, fruit	8 tons = 16,000 "	17 "	11 "	14 "
Raspberries, fruit	2,000 qts. = 2,000 "	3 "	9½ "	7 "
Radish	3 tons = 6,000 "	11 "	27 "	10 "
Rata Baga, roots	800 bu. = 40,000 "	76 "	48 "	196 "
" leaves and tops	8 tons = 4,000 "	24 "	7 "	22 "
Rye, grain	32 bu. = 1,792 "	31 "	15 "	10 "
" straw	..... = 3,800 "	15 "	9½ "	32 "
Sorghum Plant, green	12 tons = 24,000 "	79 "	19 "	86 "
" dry	4 tons = 8,000 "	.....	.....	.....
Spinach	200 bbls. = 12,000 "	58 "	19 "	32 "
Squash, fruit	8 tons = 16,000 "	.....	.....	.....
Sugar Beet, roots	18 tons = 36,000 "	79 "	36 "	172 "
" leaves	..... = 10,000 "	35 "	10 "	34 "
Strawberry, fruit	5,000 qts. = 5,000 "	7½ "	5 "	13 "
Tobacco, Dry, leaves	..... = 1,260 "	43 "	8 "	51 "
" stalks	..... = 1,100 "	27 "	10 "	31 "
Turnip, roots	600 bu. = 33,000 "	59 "	33 "	128 "
" leaves	..... = 9,000 "	27 "	8 "	25 "
Tomato, fruit	400 bu. = 20,000 "	34 "	8 "	72 "
" plants	..... = 15,000 "	48 "	10½ "	75 "
Vetch (V. Villosa), green	4 tons = 8,000 "	52½ "	13 "	33 "
" hay	2 tons = 4,000 "	112 "	29 "	93 "
Wheat, grain	30 bu. = 1,800 "	37 "	13 "	9½ "
" straw	..... = 3,600 "	17 "	8 "	22 "

FARM AND GARDEN IMPLEMENTS.

PETER HENDERSON & CO. carry a full line of up-to-date Tools and Implements, including spraying apparatus, insecticides, etc.,

Which we illustrate, describe and price in our large **IMPLEMENT CATALOGUE** which will be mailed free to customers applying for it.

HENDERSON'S

SPECIAL

GRASS MIXTURES

FOR.. HAY ..AND

PERMANENT PASTURE

HAVE SEEDED

THOUSANDS OF ACRES

IN

AMERICA.

THE LARGEST

STOCK FARMS,

PROGRESSIVE

FARMERS,

AND THE

AGRICULTURAL PRESS

..PRAISE..

HENDERSON'S

SPECIAL GRASS

MIXTURES.

From the N. Y. Herald

W. C. WHITNEY ON RANCOCAS

Turfman Tells Why He Chose Lorillard Farm for His Horses.

William C. Whitney to-day at his home, No. 871 Fifth avenue, told why he had decided to bring his horses from Lexington, Ky., to the Rancocas farm in New eJrsey, now owned by Mrs. Lillie Barnes Allien, her property since the death of Pierre Lorillard.

"These arrangements," said Mr. Whitney, "have been completed, and I expect in the near future to bring all my horses to the New Jersey farm. I have not bought Rancocas. The farm is not for sale. I have simply made an arrangement to [illegible] horses on a part of it.

"When a man is interested in horses three-fourths of his leisure time is spent in seeing the horses. He wants to look at the animals two or three times a year at least. With my horses are in Kentucky it is only possible for me to see them about once a year, and because of that I have been looking over the field in the East for the last two years to find a suitable place for my stables.

Can't Afford to Lag.

"But you must consider that there are other things to consider besides the pleasure of looking at your horses. If a man is going into the speeding business now he must remember it is the day of sharp competition and he cannot afford to lag behind in any particular. Therefore it becomes a vital question as to where the field lies for the very best development of his animals.

"I have studied the Eastern section in every respect, as to climate, food and other necessary features for the horses' welfare.

"For instance, there is what is called the milk region in New York, where the great dairies are. I have looked into that district, and while it may be suitable in the summer the winters are so cold that the horses would lose in such rigorous weather what they would gain in summer.

"August Belmont attempted to breed horses on his Long Island farm, and after a fair trial was obliged to admit that it was an absolute failure. Mr. Paget brought a car load of horses from Colordaoo a few years ago, and took them to my place at Westbury, L. I. I told him to turn them out in the meadow there, where the grass is a foot and a half high, but instead of thriving the horses got thin. So that you see it is a very important point to find out just where the horses are capable of the very best development.

Best Place for Horses.

"I have had Rancocas Farm in mind for some time. I knew that Mr. Lorillard had brought this farm up to the highest point of development for the breeding of horses. He had selected the farm because of its favorable location, and he had developed the very best grasses that are conducive to the health of horses. In raising these grasses he consulted with Henderson, the seedsman.

"The farm lies back of the pines and is just sheltered from the [illegible] the wind. It is in the [illegible] which is noted, as [illegible] its salubrity of [illegible]

"The only [illegible] was: Would [illegible] Allien for [illegible] for breeding [illegible]

"I was [illegible] large for [illegible] such an [illegible] Besides [illegible] fame of [illegible] Allien [illegible] when it [illegible] she acq[illegible]

"No [illegible] as yet [illegible] troub[illegible] sever[illegible] and [illegible] mad[illegible]

"I [illegible] fron[illegible] farm[illegible] bree[illegible] giv[illegible] m[illegible] t[illegible]