

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



62,67

1916?

LIBRARY  
 RECEIVED  
 ★ JUL 13 1923 ★  
 U.S. Department of Agriculture

# PURE FIELD SEEDS



DIRECT FROM  
 PRODUCER TO  
 CONSUMER

**A. C. HOYT & CO.**  
 FOSTORIA  
 OHIO



## PERSONAL LETTER

It is with the utmost pleasure that we mail you our latest Catalog.

We want to thank our friends and patrons for the loyal support they have given us in the past, and especially do we appreciate your kindness in telling your neighbors and friends, from whom we have received many orders for our "PURE FIELD SEEDS."

We are entirely familiar with the needs of the farm, as we have spent the greater part of our lives upon a farm near our city, and we are at present directing and managing the work of several farms from which we receive a large share of our "PURE FIELD SEEDS."

We are located in northwestern Ohio, where diversified farming has been reduced to a science, and where the fertility of the soil is such that it demands the use of the most up-to-date machinery and modern methods, and as a result the most perfect and well-developed seed and grain from which to select our "PURE FIELD SEEDS."

Our shipping facilities are unexcelled, having three railroads running east and west, diverging somewhat, whereby each supplies a field of its own, also two railroads running north and south, besides three interurban railways, diverging to every point of the compass from our thriving little city of ten thousand inhabitants.

Our post office receives and sends out over these different routes thirty-four distinct mails within every twenty-four hours.

With these excellent facilities, we are able to assure prompt delivery, while, on our part, it is our custom to fill all orders on the same day they are received, if possible.

Ask for samples and they will be mailed to you promptly with our latest quotations.

We guarantee every shipment to equal samples and if by any error, there should at any time some seed be sent that is not equal to sample, we will esteem it a favor to have the same returned to us at our expense, and the purchase money will be refunded.

OUR TERMS—are cash with the order, either post office money order, express money order, bank draft or certified check.

OUR REFERENCES—The Commercial Bank and Savings Co., The First National Bank, or any other business firm of our city, or Dunn's or Bradstreet's commercial agencies.

Although you may have dealt with us for the last ten years, or you may be worth many more dollars than some of our most trustworthy friends, yet we have no way to ascertain your financial credit without needless expense, or waste of time, therefore, in order to facilitate prompt delivery and lessen our expense, and thereby cheapen "PURE FIELD SEEDS" to you, we ask all our patrons to send remittance with the order.

We are glad to answer questions and to help our customers with their farm problems. We ask our customers to help us by writing their questions on a separate sheet, when ordering seed and asking advice at the same time. This will save us much time, which in our busy season we will greatly appreciate, and it will expedite the answering of your questions.

Upon the following pages we will give a brief description of the most common varieties of field seeds and their relative values as fertilizers and animal foods, and trust you will not only find them interesting to read, but instructive as well. We suggest that you keep the book on file where it is easily accessible for future reference.





Medium Clover

## MEDIUM CLOVER

Also known as Little Red or June clover, is the principal leguminous crop of the United States, and with Timothy, forms a combination from which 90% of the hay is made. Most Ohio farmers use it in a regular three-year or five-year rotation of crops, where it plays an important part in the fertility of the soil.

It is useless to give a detailed description of the plant, as every one who is familiar with agriculture knows the importance of its presence on the farm and has become well acquainted with it.

There are, however, some characteristics of the clover plant with which the ordinary farmer is not familiar, only in a general way. One of these is its nitrogen-bearing nodules. Nitrogen forms about four-fifths of the bulk of air that surrounds the earth. If this be true, there are about 37,000 tons of nitrogen hovering over one acre of clover, and the leaves are entirely powerless to take from it its supply. The way nature has provided for the plant to receive its supply of nitrogen is through its root "nodules."

Upon the roots of every vigorous clover plant there are a number of minute little knobs called "nodules," which are the home of numberless tiny plants called "bacteria." These have the power to collect the nitrogen from the air with which they come in contact. As they are located beneath the surface, it is with difficulty that the plant is sufficiently supplied unless the surface is kept loose and porous.

The clover plant furnishes the bacteria, and its deep root system brings up the plant food in the subsoil; these are stored up in the clover plant, and when plowed under, form compounds which other plants and grains can use.

The Ohio Agricultural bulletin mentions clover as the cornerstone of Ohio agriculture, which is due primarily to the fact that its culture increases the yield of other crops. A piece of clover sod turned under, is a distinct asset which may be cashed in the form of potatoes, corn or other grain.

There are about 300,000 seeds in a pound of Ohio-grown clover, and when you sow at the rate of seven and one-half pounds to the acre, you scatter 54 seeds to each square foot of surface. This is not the case with all clovers. Clover grown in some of the foreign countries has only about 200,000 seeds to the pound and at the same rate, will scatter only about 36 to each square foot of surface when evenly distributed.

The clovers have no time to play:  
They feed the cows and make the hay,  
And trim the lawns and help the bees  
Until the sun sinks through the trees,  
And then they lay aside their cares  
And fold their hands to say their prayers,  
And drop their tired little heads  
And go to sleep in clover beds.  
Then when the day dawns clear and blue  
They wake and wash their hands in dew,  
And as the sun climbs up the sky,  
They hold them up and let them dry,  
And then to work the whole long day,  
For clovers have no time to play.

During the latter half of the year of 1913, this country imported 6,306,500 pounds or 105,100 bushels of clover and alfalfa seed, and every pound of it was finally sold to the farmer.

As this country has but recently begun to enact laws regulating the importation of impure seeds, we have in the past been the dumping ground for the seeds of a low order that would not sell well in the European markets. Some of it goes without alteration to the trade to fill the demand for cheap seed, and some of it is mixed with other seed to reduce the cost.

Most of the foreign seed finds a market in the eastern part of the United States, as the central states raise plenty of clover and it would be impossible for merchants to pay transportation charges, reserve a profit to themselves and meet the competition of the growers for their home trade.

Our stock is nearly all procured in our immediate vicinity and graded up and cleaned by one of the best cleaning outfits in the country. Our best grades of seed all test better than 99½% purity. We do not handle foreign clovers.

There are a number of methods recommended for seeding clover, but the one most commonly used in our immediate community is to scatter the seed over the wheat field in the spring when the ground is somewhat honeycombed by the frost, to render a natural covering reasonably sure. Some, however, have begun to sow later, with oats or barley, and the seed is covered with the drill while sowing the grain. It pays to exercise care in seeding clover, as prime weather and soil conditions do not often come within the same year.

Several of the states have recently enacted very stringent seed laws regulating the sale and importation of seeds; the object of such laws is to protect the farmer from unscrupulous seed dealers who have been selling seed that is mixed with noxious weed seeds and otherwise of a low germinating order.

Our Medium, Mammoth and Alsike clovers are all native grown; our Alfalfa seed is strictly Northwestern seed.

Most of the weed nuisance has been introduced into this country by the importation of clovers and other seed from Europe.

It behooves every purchaser of seed to see to it that he gets our "PURE FIELD SEEDS."

### WHITE CLOVER

White clover is sometimes called Little Dutch clover and is used principally to mix with other grasses for lawn seeding. It is not sown for field culture in this country, but grows wild in permanent pastures and low creek bottoms. Most of the seed used in this country is imported from Europe.

### MAMMOTH CLOVER

Also known as Sapling and Pea Vine clover. Like the Medium clover, Mammoth is a perennial and very much like it in every other respect, except that it makes a much ranker growth and is a little more reliable on thin soils. The seed is just like that of the Medium or Little Red and cannot be distinguished from it in appearance.

Mammoth clover, besides growing much ranker, and having a coarser stem, matures a little later in the season and the first blossoms will ripen and fill with seed, while the Medium, the first crop of the season, is made into hay and a second is left to ripen for seed.

Because the seed are so much alike, seed merchants must rely upon the grower to keep them true to name.

We have always been very careful in preparing and storing our seeds to keep them true to name.

When ordering "PURE FIELD SEEDS" be sure to mention whether you want Medium or Mammoth.





## ALSIKE CLOVER

Alsike is a valuable variety and is the hardiest of all clovers. It is thought to be a hybrid between the Red clover and the White or Little Dutch clover. It is perennial and may be sown in the same manner as the Medium Red and will do well as hay, pasture or soil improvement. While it is not quite so good for soil improvement as the Medium or Mammoth clovers, it will do as well for hay as the Medium. It grows nearly as tall, is much finer, and will do equally as well on any soil, and much better on thin and wet or soggy soils than the Medium.

The seeds are much smaller and for this reason fewer quarts are sown per acre to get an equal setting of clover. There are a number of persons who mix a small amount of Alsike with their other clovers and find the result quite satisfactory. It does well mixed with Timothy, as it ripens about the same time.

## SWEET CLOVER

Sweet clover is a legume and thrives in all parts of the United States on any kind of soil, but does better where there is lime.

Seed should be inoculated, except in communities where the growth is common. It may be sown either in the spring or in the fall.

Sweet clover is one of the most vigorous soil enrichers and can be given a foothold on soils so poor that ordinary farm crops cannot be sustained. Its root system is a nitrogen bearer.

It has been recommended for feed, but stock must learn to eat it before it will be relished. It is quite frequently used to inoculate the soil for Alfalfa.



### CRIMSON CLOVER

Crimson or Scarlet clover is an annual. It is the most popular clover to farm for the purpose of plowing under to enrich the soil. It makes a very tall, rank growth of foliage.

It gathers nitrogen from the air and there is no cheaper source of nitrogen to be had than Crimson clover.

It should be sown in July or August and by the following spring, it will come into blossom about the middle of May to the first of June, when it should be plowed under. If it is to be followed by early crops, the plowing may be done earlier with very little loss in fertilizer value. Many successful farmers sow Crimson clover after early potatoes have been taken up. Others get splendid results by sowing in their corn fields at the time of the last cultivation of the corn.

Crimson clover is larger in the seed than other clovers and consequently, as much as eight to ten quarts should be sown per acre to get best results.





## ALFALFA

The original home of Alfalfa seems to have been southwest of Central Asia, but from there it has been carried to almost all parts of the world where agriculture is known. It is now one of the staple forage crops of each continent of the old world and easily takes front rank as the most important leguminous forage crop of the Western Hemisphere.

The name "Alfalfa" is of Arabic origin and means "The best fodder," while in southern Europe it has been termed "Lucerne" by which name it was first introduced into the eastern part of the United States and into Utah by the Spaniards.

The Persians were apparently the first nation which grew this plant. They took it with them when they invaded Greece, in about 490 B. C. The object seems to have been to provide forage for the horses and cattle upon which their armies depended. Such early writers as Vergil and Pliny give what may yet be regarded as excellent instructions regarding the handling of Alfalfa fields.

It was probably the Moorish people that carried it to Spain about the eighth century A. D., then it was carried by them into Mexico in the sixteenth century and from Mexico into the United States, but did not come into prominence as a feed until it was brought into California from Chile in 1854; from San Francisco it was rapidly extended throughout the irrigated sections of the West. Its culture has since been extended to most of the states of the Union.

The more humid sections of the Great Plains area have proven especially adapted to its production. Eastward from the ninety-sixth meridian, its culture has been less successful owing to the presence of less favorable conditions of soil and climate.

Its history in the Eastern States runs back for at least two centuries, as the colonists made repeated attempts to establish it under the name of "Lucerne," but were unsuccessful. The limestone region of central New York probably constitutes the area of its longest continued culture. In South Carolina, there is a field that is said to be seventy-five years old.

The recent efforts looking to its extension throughout the East and South indicate that the chances of success increase greatly as the special requirements for its production are understood and provided for. Alfalfa is the most valuable as well as the most profitable forage and hay plant that the world has yet produced. It will furnish more green fodder, more dry hay and more pasturage per acre, than any other known grass or clover. For feeding domestic animals, it is worth more per pound of dry matter than any other forage. Pound for pound, it will equal or exceed wheat bran in producing pork, mutton, milk or beef.

Unlike the onward march of every other crop that has spread over this country from East to West, Alfalfa has gradually spread from West to East; starting from California about the time of the discovery of gold, it has gradually extended eastward until now there is hardly a state in the Union that is not successfully growing it.

The acreage east of the one-hundredth meridian has probably more than doubled since the last census was taken.

### **ADAPTABILITY TO VARIOUS CONDITIONS**

So far as climate is concerned, Alfalfa can be grown in every state in the Union. It is, however, very exacting in humid sections as to soil and treatment. It is grown below the sea level in California, and at altitudes exceeding 8,000 feet in Colorado. Under irrigation, it yields abundant crops in the deserts of Arizona, which are among the hottest in the world.

It is raised without irrigation in the semiarid sections, where the rainfall is less than 14 inches annually, and also in the Gulf States where the annual rainfall exceeds 65 inches at times. An annual rainfall of 36 inches properly distributed is ample for this crop, and any excess above this is apt to be a detriment especially where it is poorly drained or has tendency to be heavy and soggy.

### **THE QUANTITY OF SEED TO SOW**

The quantity of seed required to the acre varies considerably in different sections of the United States. In the west, in semiarid sections, fair stands have been secured with as little as one to five pounds per acre; this has been under perfectly ideal conditions, and with cultivating the plants. In the humid regions, it is necessary to sow much more. The following rule has been recommended, but this must be modified to meet the requirements of your immediate neighborhood, or in other words, your soil and climate. For the Atlantic and Southern States, use from 24 to 28 pounds to the acre. States west of the Appalachian mountains and east of the ninety-eighth meridian, use 15 to 20 pounds to the acre, and for the semiarid states of the West, use from five to fifteen pounds to the acre.

### **A NURSE CROP**

In our section, we have found it profitable when sowing in the spring, to sow barley with Alfalfa as a nurse crop. Sow about one bushel to the acre with about 15 to 20 pounds of the best Northwestern-grown Alfalfa seed. In the West and South, and for midsummer sowing, a nurse crop is a detriment instead of a benefit to most fields, unless irrigation is possible.

### **INOCULATION**

As Alfalfa is a nitrogen-bearing plant, and these nitrogen-bearing bacteria are necessary to the thrift and life of the plant, it becomes necessary in the Eastern States where these are not naturally in the soil, to apply some form of inoculated soil or culture to the field where you intend sowing. Although possessed of some disadvantages, inoculation by means of soil from some field where Alfalfa has been successfully grown, will nearly always produce the desired results.

The soil may be mixed with the seed and sown with it, or it may be drilled or broadcasted separately. If broadcasted, it should be done on a cloudy day and immediately worked into the soil, as a few hours of sunshine will kill all the bacteria.



If the soil is difficult to secure, it may be best to seed a small area the first season, taking special precautions to have it thoroughly inoculated. This will then furnish an abundance of inoculation for a larger field the next year.

Or, mix two quarts of inoculated soil with each bushel of Alfalfa seed that has been treated with glue solution as follows:

One ounce of common glue, thoroughly dissolved in a quart of water, spread the seed out on the floor, sprinkle with the solution and thoroughly mix; then the soil should be added and mixed so that particles will adhere to every seed.

Or, it would be better to use our Pure Culture "Nitragin" as described in this book.

### TREATMENT

The treatment the first year depends largely upon whether it was seeded in the spring or in the fall. If it does not make a growth of more than 8 to 10 inches, it should not be clipped as it will need this growth for winter protection. In this condition the plant has sufficient protection for the crown during the winter.

If, however, it has been sown early enough in the season to make a growth sufficient for a cutting, care should be taken not to cut it too close, as this will clip the basilar shoots, thus delaying the next growth, and also injuring the plant

It is generally considered that the time that Alfalfa is coming into bloom is the best time for a cutting, but it is best to watch for the basilar shoots to start and not allow them to get so large that they will be clipped off with the crop.

As long as an Alfalfa field shows a perfect stand, with no tendency to run to weeds, it is not customary to give the field any special treatment. If the weeds begin to prove troublesome, it is advisable to harrow the ground after cutting. This will kill the weeds and will loosen up the surface to allow a free aeration of the soil.

A spring-tooth harrow is usually regarded as the best kind of tool with which to work an Alfalfa field, and if the team is hitched several feet from the harrow, it will give it more swing to move around the Alfalfa roots without injuring them. If the field needs liming, it is advantageous to apply the lime when the field is being worked, either in the spring or after the first cutting. A top dressing of well-rotted barn yard manure may be applied at this time.

### SOIL REQUIREMENTS FOR ALFALFA

Although Alfalfa is being successfully grown on all soils, from almost pure sand in Florida to the stiffest clays in the north, it does best on deep, fertile, well-drained soil, rich in lime and reasonably free from weeds. Alfalfa is a heavy feeder, drawing large quantities of phosphorous and potash from the soil, and for this reason it should be planted in a deep, fertile, well-drained soil, otherwise failure may be the result of your efforts.

### LIMING

No other forage crop requires so much lime in the soil as does Alfalfa. It is usually best to apply the lime the year preceding the one in which you intend to sow the Alfalfa, as it allows time for the lime to become thoroughly incorporated into the soil. As a general rule it is best to purchase that form which will mean the most actual lime for the outlay of money and time of applying it to the soil. Ground unburned limestone is proving very satisfactory in many sections. It will require nearly twice as much of this as it would of the burned lime, but it is much cheaper and would be more lasting. Under ordinary conditions it will require about two tons to the acre.

Young Alfalfa plants are very tender and apt to be killed by weeds during the early stages of growth, and it is essential that the land be as free from weeds as possible. If a weedy soil must be used, the land should be plowed several months before you intend to sow the seed and then work it several times with harrow to destroy the weed seeds, allowing several days' time between each working to allow the weed seed to germinate.

The seed bed should be in excellent tilth at seeding time. It should be fine on top, but should be thoroughly settled. As a general rule, plowed land requires about six weeks to thoroughly settle. In some soils, however, it is as well to disc and in that way the work can be done with less expense than to plow it. Frequently it is profitable to prepare the corn-stubble land of the previous year, as most of the weeds have been eliminated by the working of the corn, and the land will be well settled.

Summer fallowing in semiarid regions has been recommended to conserve the moisture sufficiently to give the plant a good start.

The growing of Alfalfa requires a little higher order of system than many of our most successful farmers like to employ in their work.

You can use a good quality of limestone, ground fine, for almost all crops, and especially should you have lime in your soil for all clovers.

### SELECTING THE SEED

The selection of the seed is an important matter, the source from which it is derived, and its purity are all matters of vital importance and should receive due consideration.

Seed grown in Northern climates will do very well to sow in the Southern States, but the seed grown in the Southern States will readily winterkill in the Northern States. Since the demand in this country has exceeded the supply, it is safe to say that you need not fear buying old seed, for there is scarcely any on the market, but this is not so important, for tests made prove that seed from five to seven years old have lost very little of their vitality. The greatest care should be taken to get our "PURE FIELD SEEDS."

### THE BEST TIME FOR SEEDING

The time for seeding Alfalfa varies in the different parts of the country. The general principle underlying the time for seeding is to sow as far as possible in advance of what promises to be the most trying time for the young plants. As a general rule, late summer seeding for the east and the south and spring seeding for the irrigated and semiarid sections of the west.

In northwestern Ohio it has been found profitable to seed Alfalfa early in the spring after the danger of frost is over; it should then be seeded with a light seeding of barley at the rate of about one bushel of barley and fifteen to twenty pounds of Northwestern-grown Alfalfa seed to the acre. This should then be clipped at early barley harvest.

The weeds of the midsummer constitute the worst danger to the young stands in the humid sections, while in the north and colder climates and shorter seasons, there is danger of winterkilling. There is another advantage in midsummer sowing in the humid regions. A crop of some other kind, such as grain, early potatoes, etc., may be taken off before seeding; then, too, the early growing weather will have germinated the weed seeds and they can easily be destroyed.

The seed should be slightly covered. In our section it is recommended to be covered to the depth of three-quarters to one inch if the soil is heavy, and to the depth of one and one-half inches in loose or sandy soil.



## ALFALFA

The Alfalfa in the accompanying picture was grown on our Corn-Falfa farm, and was the first cutting of the second year's crop.

At the time of cutting, some of it measured forty-six inches in length, and made nearly three tons of hay to the acre.

In the early part of April, the field was cultivated with a spring-tooth harrow, and treated with two hundred and sixty pounds to the acre of commercial fertilizer, composed of 16% phosphorous mixed with pure muriate of potash, three of the former to one of the latter.

Experience has shown that the right use of fertilizer, barnyard manures, proper tillage, **Hoyt's Pure Field Seeds** and crop rotation, insure prosperity.

## GRIMM ALFALFA

This is a variety of Alfalfa that was brought to this country by Wendelin Grimm, an immigrant from Germany. Its cultivation has been confined mostly to the states in the Northwest, where its use as a seed crop has been found profitable. At present the government is buying a large per cent of the seed crop and using it in different experiments. The seed is so high priced that it is almost impractical for commercial use in the central sections of the United States.

## TURKESTAN ALFALFA

Turkestan Alfalfa was introduced in this country in 1898 and has since been tried in all parts of the country. It is decidedly inferior in the humid sections east of the Mississippi river, while in some sections it may be considered hardier, yet it has failed to make sufficient growth in the humid regions to nearly equal the common varieties for feed.

Large quantities of Turkestan Alfalfa seed are imported each year and is generally sold at less price per bushel than the Northwestern-grown. This probably is the cause of so many Alfalfa seedings not being altogether satisfactory.



## MAKING THE HAY

One of the dangers to be guarded against in making Alfalfa hay is the shattering of the leaves. Only two-fifths of the total weight of the Alfalfa plant is in the leaves, and three-fifths of all the protein is contained in them. In other words forty-four pounds of the leaves contain as much protein as one hundred pounds of the stems.

Analyses show that the leaves are somewhat richer for feed than common wheat bran. It is, therefore, important that the hay be handled and cured without the loss of the leaves.

Alfalfa must never be pastured during the first year of its growth; even an old stand should be pastured sparingly if the stand is to be maintained and kept uniform. It should not be stocked so heavily as to prevent taking off a partial crop of hay at each regular time of cutting.

There is not much danger of Alfalfa bloating cattle or sheep if the proper precautions are taken in not allowing them to go on to the pasture while it is wet, or while they are real hungry.

### A FEW DON'TS

Don't fail to provide for ample inoculation.

Don't sow poor or weedy seed.

Don't sow on a weedy soil.

Don't sow on poorly drained soil.

Don't pasture the first year.

Don't lose the leaves, as they are the best part of the hay.

Don't give up; many Alfalfa growers finally succeeded only after many failures.

Don't clip or mow Alfalfa while the dew is on.

Don't try to save money by buying cheap seed.

Don't throw money away by seeding Alfalfa on newly plowed ground no matter how well prepared.

# For Success with Alfalfa, Clover Cow Peas, Soy Beans, Vetch, Field Peas and Beans, Garden Peas and Beans, and all other legumes, treat your seed with



Gold Medal, St. Louis, 1904



THE SIMPLEST SAFEST AND SUREST SYSTEM  
OF SOIL INOCULATION FOR ALL LEGUMES



"Nitragin" is the trade name for the germ that acts on the legume root, draws nitrogen from the air and converts it into plant food. As a result there is a uniform "catch" and quick growth of strong, hardy, healthy plants. The soil is enriched for the nourishment of succeeding crops.

"Nitragin" Pure Culture is packed in ventilated tin cans, in a granular medium that provides food and shelter for the germs and insures safe delivery from the laboratory to your farm. Each can contains billions of strong, healthy germs, guaranteed by the Armour Fertilizer Works to retain health and vitality for seven months from date of preparation marked on can. Easy to apply—10 minutes work—a boy can do it.



SEED NOT INOCULATED **ALFALFA** SEED INOCULATED WITH "NITRAGIN"

Order "Nitragin" Pure Culture with your seeds and save postage and express charges.

### Get the Original

Look for the Armour Oval Label

Don't risk loss of seed and labor by using imitations. Get the original "Nitragin" Pure Culture, with the Armour Oval Label on the can. A separate strain for each legume. In ordering state crop desired.

Prices per can: Garden size, \$1; acre size, \$2; 5-acre size, \$9; F. O. B. Fostoria. Express extra; Parcel post, 10c per can, extra.

**A. C. Hoyt & Co.** 306 N. Main St. Fostoria, O.



## TIMOTHY OR HERD GRASS

Is the standard hay of commerce and is so well known throughout the United States that it needs no introduction. It is adapted to all soils, but succeeds best on loams and clays. The cheapness of seed, the ease of culture and its excellent quality of hay make it a favorite among most farmers.

It should be cut for hay when the blossoms fall, the seed is formed and in full milk, as at that time the roots will be better able to withstand the drought due to the removal of the main part of the plant for hay, which formerly shaded it. It should not be cut too close to the ground, as many a meadow has been ruined by cutting too close or too early.

In our community, it is usually sown in the fall with the wheat and in the spring, clover is sown onto the field, making a mixture for hay. The value of a mixture of this kind can best be appreciated after reading the agricultural bulletin on the subject, from which we quote in part:

"There is a decided advantage in mixing Timothy with clover for seeding purposes.

"It is well understood that growing clover increases the yield of subsequent crops. An interesting relation was demonstrated at the Cornell (New York) Experiment Station, where small plots of pure Timothy, and Timothy and clover mixed were sown. It was found that Timothy straws and heads that were taken from the mixed hay contained more nitrogen than the stems that were taken from the pure Timothy hay. This difference amounts to 21.3 pounds of nitrogen, or 133 pounds of protein to the ton. Apparently then, the greater fertility in the mixed crop stubble is due to the presence of the increased amount of nitrogen in the Timothy stubble as well as the clover.

"It is well understood that a larger crop of corn can be produced where clover sod has been turned under, than where a strictly pure Timothy sod has been turned under. It is also observed that a better crop can be produced where a small amount of clover is mixed with the Timothy. It is, therefore, a decided advantage to mix clover with your Timothy when seeding.

"There is also a secondary benefit: Timothy hay and oats have long been considered the staple feed for horses. This is especially true in hot weather. While Timothy contains a high per cent of carbo-hydrates, oats is especially rich in protein, the two making a balanced ration for the horse. We find a pretty good substitute in clover hay and corn, the corn being rich in carbo-hydrate, and the clover a high per cent of protein; it is therefore a splendid substitute, and it has been demonstrated that horses fed upon clover hay and corn have endured the hot weather without any depressing effects.

"Besides, corn sells for less per pound than oats, and clover for less than Timothy hay."

Order your Timothy along with your other "PURE FIELD SEEDS," as the extra weight will add very little to the freight bill and you will then have it when you are ready to sow.

## KENTUCKY BLUE GRASS

This is a fine green grass that may be sown either in the spring or fall. It makes its most rapid growth in cool weather, but withstands the effects of the greatest heat of the summer. It germinates very slowly and when sown should be sown with other grasses that germinate quickly, to protect it from the rigors of the hot sun and the drying wind. It is a fine pasture grass when once established and is equally valuable for lawn purposes.



### THE FOSTORIA PUBLIC LIBRARY

The lawn in the above picture was seeded with A. C. Hoyt & Company's mixed lawn seed, and in one week from the time it was sown, there was a fine, velvety lawn, showing conclusively that our lawn seed has no superior.

### LAWNS

#### And How to Make Them

A well-drained soil is of the first importance and is absolutely necessary to success. It must be remembered that the lawn when once formed is to remain undisturbed; the sward is to be permanent, and hence the importance of most thorough preparation of the soil. The surface should be made as fine as possible by repeated raking or harrowing, and thorough rolling before the seed is sown.

The best soil for the formation of the lawn is a fine sandy loam over a clay subsoil. We find quite frequently that in dooryards and plots throughout the city, the soil is largely composed of the earth excavated in making foundations. This earth is entirely unsuited for the growth of grass, and where a lawn is desired, should be entirely removed or covered to a sufficient depth with fine soil, rich in humus, to insure the healthy and permanent growth of grass. This added soil should be at least one foot deep.

Before sowing, work into the soil a liberal quantity of **Our Special Lawn Fertilizer** and to this add a little lime and some hard-wood ashes. To use barnyard manure will introduce an endless variety of weeds. Great care should be taken to procure seed of the purest and best quality. The highest-priced seed is the cheapest in the end.

If sown in spring, it should be as early as is possible to work and prepare the soil to give the young plant plenty of time to become well rooted. It will withstand the dry, hot summer weather better.

If sown in the fall, sow any time from the middle of August to the last of September.

Care must be taken not to cover the seed too deep; generally, rolling will be sufficient; an eighth of an inch of soil is ample covering for most grass seeds.

## LAWN SEED

Our lawn seed is made up of the purest of a number of different kinds of seeds, which make a growth of grasses that will insure a green, velvety lawn from early spring until late in the fall, and hardy grasses that will not winter-kill. We buy these seeds pure, of the very best that we can procure, and through a number of years of experience have learned to mix them in the right proportion to insure an early and thrifty growth and green sward.

## CANADA BLUE GRASS

This is somewhat similar to the Kentucky blue grass, but is slightly coarser. It is frequently used, as it is cheaper than the Kentucky and will do quite as well as a substitute.

## RED TOP

Is a valuable grass for hay or pasture. It may be sown either in the spring or in the fall, and grows slowly and will ripen along with Timothy. It is a strong grass, will not die out, and when once well started, will spread and supplant other grasses. It succeeds well on any soil and is particularly well adapted to low moist lands, or clay hillsides. It is used in a small proportion in our mixed lawn seed. We buy the best that can be procured to keep in line with our other "PURE FIELD SEEDS."

## ORCHARD GRASS

This is a valuable grass for hay and pasture, as it grows from early in the spring until late in the fall.

It grows quickly and bears close pasturing. When let stand for hay, it should be cut before the seed ripens.

Better results can be obtained by mixing Tall Meadow Oat grass and clover with it when it is intended for hay.

## MEADOW FESCUE

Or English blue grass, as it is sometimes called, is a valuable hay and pasture. In nearly all the Northern States and Canada, where most recently grown, it is coming into special favor.

It may often be used in permanent pastures and meadows, and is very valuable on wet or moist land, as it grows very rapidly and thus has a tendency to keep down the coarser grasses that grow in such places. It will thrive in such places when trampled by stock much better than clover, Timothy or Kentucky blue grass.

It is sown in the fall, some time between the middle of August and the middle of September, without a nurse crop. It may also be sown in the spring with good results.

When used for hay, it should be cut when it comes into bloom, about the latter part of June. Meadow fescue makes a good quality of hay, which is readily eaten by all kinds of stock. It does not yield quite so much as Timothy, but when it becomes established, will live and thrive longer.

## PERENNIAL RYE GRASS

Suitable everywhere, and as its name indicates, lasts two years, produces a splendid hay, yields heavily and must be cut when in bloom. It is sometimes used in mixtures of lawn seed.

## SHEEP FESCUE

Is a grass that is adapted for light sandy soil; it is smaller than other fescues, but is very nutritious, mostly valued as sheep pasture.



## **FLAX**

Flax is a crop grown mostly in the Northwest, where there is not enough rainfall for the heavier grain crops. It will do quite well on newly broken prairie land. In the Central States, it may be sown with oats at the rate of four to six pounds to the acre. It ripens with the oats and makes an excellent feed ration for all kinds of stock.

It is easily killed by the frost and should be sown after the danger of frost is over.

## **MILLETS**

Millets seldom have a regular place in the farm crop rotation, but are used as a catch or substitute crop.

It may be sown as late as the last of June when the season is too far advanced to plant corn, or in fields where clover or other crops have failed and it is too late to replant. It is also used where there is a shortage in grasses for hay.

There are a number of varieties varying somewhat in their rankness and time required to make a full growth.

### **HUNGARIAN MILLET**

Is well adapted to the northern millet-growing sections where there is a reasonable amount of rainfall. It grows very rapidly and matures quickly and is giving excellent results over a wide territory and when properly treated produces a good quality of hay.

### **GERMAN MILLET**

Makes a very heavy yield. Requires from fourteen to twenty-one days longer time to mature than the Common or Hungarian millet. It is best suited to the Central and Southern States, where it produces an abundance of leaves and is highly prized as a stock food when fed green. It has a larger seed head than the Hungarian millet.

### **COMMON MILLET**

Is the earliest of Common millets, is drought-resistant and will give a fair return on the proper class of soils.

### **SIBERIAN MILLET**

Is one of the best varieties for cultivation in the Western States. It matures about the same as Common or Hungarian millet and has been successfully grown in sections where the season is too short to grow corn. It has become quite popular in the Northwest.

### **JAPANESE OR BARNYARD MILLET**

Brought to this country from Japan in 1889 by Prof. Wm. T. Brooks, lately of the Massachusetts Agricultural Experiment Station. It is a larger, coarser and more succulent plant, yet in the experimental stage for this country.

It is highly recommended for green feed, or ensilage, but difficult to dry for hay. As it is a vigorous and thrifty grower, it naturally requires more moisture and a better soil than the common varieties of millet.

### **HAIRY VETCH**

Also known as Sand vetch and Winter vetch. It is an annual and is grown for stock feed, for soil improvement, and as a cover crop in orchards. It is usually sown with rye, oats or wheat and when thus used it will yield from six to eight tons of fodder to the acre.

It will grow in almost any well-drained soil and will be suitable especially to sandy soil.



One bushel of the vetch with one bushel of grain is used to seed one acre. It may be sown in spring from April to the middle of May, or in the fall from the middle of August to the first of October. The grain is mixed with it to cause it to grow upright and keep it from vining on the ground. It is somewhat difficult to handle because of its vining nature.

Where it has been sown on thin soil, it has been found to pay well to inoculate, either by spreading or working in some soil from an infected field or by procuring our Pure Culture "Nitragin."

If cured properly, it makes good hay, as the feeding value is equal to clover hay. It may also be used for pasture, for silage or for a soiling crop to plow under. As it lives over winter, it is highly recommended for a cover crop for orchards.

### **SORGHUM**

This plant should receive more attention as a forage crop. It is a rapid grower, stands drought well, and makes immense crops of green feed and fodder; it possesses unusually high-feeding value and may be grown anywhere in the United States.

It may be sown broadcast at the rate of one bushel to the acre, or in drills at the rate of about twenty pounds; it may be cut anytime from the time it is two feet high until it is nearly ripe. If cut early it will produce a second crop.

### **SOJA OR "SOY" BEANS**

Generally speaking, the Soy bean requires about the same climate and soil as corn. It is a native of China and Japan and was imported into this country directly to Massachusetts and Kansas. The leaves are trifoliate and it belongs to the family of legumes. Since its introduction, it has been successfully cultivated in a much larger territory than at first expected. It is used for hay, silage, grain and sometimes for soiling and for pasture.

Its effectiveness as a soiler depends largely upon the nitrogen-bearing nodules. It is, therefore, necessary in most cases to inoculate, either by supplying soil from a Soy bean field, or by using our Pure Culture "Nitragin."

The Ohio Experiment Station has been growing Soy beans continuously since 1894 and at the present are sowing about fifteen acres annually.

One of our patrons who has been quite successful in raising stock, recommends Soy bean hay very highly for sheep feed.

### **CANADA FIELD PEAS**

This is another nitrogen-bearing plant and is accredited with the power to enrich the soil, even if the plant or main part of it has been gathered for feed.

It is usually sown with oats early in the spring and makes good feed for stock when threshed, or hogs may be turned into the field while the crop is standing and they will do well without any other feed.

Canada field peas are hardier, and can be grown farther north than any other of the common pea varieties.

### **COW PEAS**

There are a number of different varieties of cow peas, but they are somewhat similar, and are used for feed and for enriching the soil.

Cow peas are legumes, and like all varieties of the pea family, are rich in protein, and grow on almost any kind of soil.

Being more of a warm weather plant than Canada field peas, or some of the varieties of Soy beans, its cultivation is limited to the warmer climates of the Central and Southern States.

The power of the Cow peas and the Soy beans to gather nitrogen from the air, and the large amount of organic matter they are capable of producing and their beneficial effects upon the tilth of heavy soils, are qualities that commend them in the highest degree, to say nothing of their value as feeding stuffs.

### WHITE KAFFIR CORN

Valuable alike for seed and fodder. When grown for fodder it may be cut twice; each time a growth of four to five feet will be attained.

If left for seed, as much as ninety bushels to the acre have been produced in some parts of the West. It is drought-resistant, doing fairly well where it is too dry to raise corn.



### BUCKWHEAT

Buckwheat is one of the many crops that can be used as a catch crop when it has become too late in the season for the regular rotation, or when the season has been dry or otherwise unfit to prepare the soil until after the June rains.

It is a good, healthy grain that can be grown on poor soil and may also be used as a second crop following early potatoes, or peas, etc.

It may be sown as late as the last of June in climates similar to Ohio and is also used frequently as a soiling crop.

There are two leading varieties, differing somewhat in the size and color of the grain. The Silver Hull is the earlier variety, has somewhat smaller grain and has a silvery cast, and it makes more flour per bushel. The Japanese is more hardy and grows larger and more vigorous.

### RYE

Spring rye is distinct from Winter rye. It does not stool out like the winter variety, but the straw is equally valuable.

We have a good supply of Winter rye, well cleaned and free from weed seed. This variety is sown in the fall and is used for a cover crop, or for early spring pasture, or may be plowed under for a soiling crop.

We have found it profitable for hog pasture, allowing the hogs to feed upon it even until ripe.

## DWARF ESSEX RAPE

This is grown for sheep and hog pasture, and is often used in poultry runs to furnish green feed for poultry. It is a biennial and in some of the European countries it is grown extensively for its vegetable oils extracted from the seed, and is used as an article of food—a substitute for lard.

Rape can be sown any time after the danger of frost is past in the spring until the first of September. Many farmers in the corn-growing section sow it in the corn field after working it the last time, to furnish green feed for the hogs while hogging off the corn.

It grows very rapidly and when the weather conditions are favorable, six weeks will be sufficient to make large enough growth for pasture and the plant to continue growing.

## BARLEY

In the United States and Canada, barley is used for malting purposes and for feeding farm animals. A very small proportion is used for the manufacture of breakfast foods.

Common barley may be classed as six-rowed, four-rowed and two-rowed; the four-rowed instead of being a distinct class is considered but a variation of the six-rowed class.

Barley is a shallow feeder, its roots growing near the surface; therefore, it requires a well-subdued, mellow, rich soil, with fertility near the surface. It is a good crop to use as a nurse crop for Alfalfa and other clovers.

Several other varieties, such as Beardless and Hulless barley, have been introduced, but the results have been so unsatisfactory in most of the states that they are not used to a great extent.

Barley should be cut with a harvester when it is well ripened so that the heads are of a golden yellow, and should not remain in the shock very long, as the rain is apt to discolor it. It should then be put into a barn or stack where it will go through the sweat before putting into the bin, as there is danger of it getting too warm in the bin and thus cause it to deteriorate.

## OATS

Oats is the great American grain; the bulk of the crop is grown in the Central West, while the Great Plains country has had fair success with it. The average yield is about thirty-five bushels per acre, while some have reaped eighty-five to ninety bushels in the northwestern part of Ohio.

It is true with oats as with other crops, that the man that sows pure seed, that has been properly cared for, will reap the largest crops.

Our Swedish Select oats has been widely distributed throughout Ohio and in parts of Pennsylvania and New York, and has been found to be a heavy yielder.

Our stock has been grown on fields specially prepared for the production of seed oats, then thoroughly cleaned and fanned to remove all the light and imperfect grains.

It is true that some kinds of oats will do better in one locality than they will in another, therefore, it is important that you select seed that will thrive best in your immediate locality.

When asking for a sample of our "PURE FIELD SEEDS" be sure to include a sample of oats.





## WHEAT

Wheat is the pioneer small grain of America. It was probably brought to this country early in the sixteenth century. At this time it was coming into prominence in Europe as a food cereal.

Early in the eighteenth century, wheat became the great bread-making cereal. Wheat-growing in America has increased enormously, but has never kept pace with the increase in the population, besides in the Mississippi Valley it has of late been largely supplanted by corn.

Our average yield is a little less than fifteen bushels per acre, while in Great Britain or the British Isles, they have an average of better than thirty-two bushels. It is evident that we must increase our yield to keep in line with the increase of population, while the English farmer has shown us that such increase is possible with up-to-date methods of farming.

Some of the factors that work wonders in increasing the yield are: proper rotation, soiling crops, better cultivation, and especially a careful selection of "PURE FIELD SEEDS."

Our seed wheat is grown on strong soil, well drained and thoroughly worked to bring about the best possible conditions for the wheat plant to draw from the soil the elements that will be needed to produce wheat with strong vitality and a high per cent of germination.

We are also particular to go through the field in the spring and cut out the weeds, if there are any, for it is the only perfect way of cleansing, or ridding the seed of certain noxious weeds that are too large to screen out.

We aim to keep in line with all profitable varieties of wheat, but are not prone to take up any that have not proven their worth.

### RED WAVE

Our Red Wave is a beardless wheat with red chaff, hard, large, dark red kernel; the straw is very long and stiff. It ripens in midseason and will not shatter as easily as some other varieties.

### WINTER KING

Our Winter King is a white wheat with smooth head, red chaff, large full berry, stiff straw and is especially adapted to loose loam soils. It has been found to withstand the rigors of the winter better than the red wheat varieties. We raised an average of forty-two bushels per acre for two years.



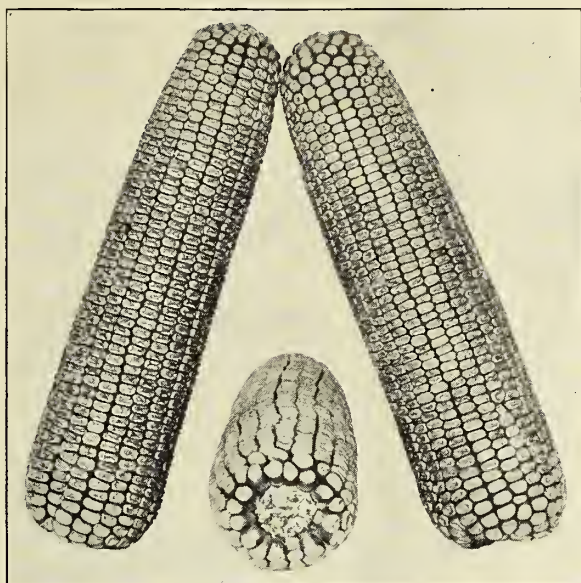
## POOL WHEAT

Our Pool wheat is growing under the most favorable conditions for a perfect and well-formed seed, strong in vitality, and we have reason to believe that it will be in line with our famous "PURE FIELD SEEDS."

When in the market for seed wheat, ask for samples and prices and same will be forwarded to you promptly.

Special care should be exercised in sowing winter wheat to avoid drilling it to such a depth that the food store of the little kernel will be exhausted before the leaf shoot reaches the surface of the ground. If the wheat is buried too deeply, it will die of starvation and suffocation.

Spring wheat is used in the Northwest, where it is sown very early, as soon as the frost is sufficiently out of the ground to get a seed covering. It has not been successfully grown in the Central States east of the Mississippi river.



## SEED CORN

Never before in the history of our country has there been such a demand for pure seed corn as now. It costs no more to raise a crop of pure bred corn than it does to raise a crop of poor corn, except, however, the seed will cost you a trifle more to begin with.

You can buy a bushel of pure-bred seed corn and it will not cost you over forty cents per acre for the seed, while it will bring you many times that in increasing your yield and quality of corn, with a higher feeding value for your stock.

Our corn fields were prepared in the most modern manner and our seed was selected of the very best type to be had, and as a result, we have as nice a lot of well-developed seed as we have ever raised.

We took exceptional pains to take care of it before the freezing weather, seeing that it was well dried out, and we are keeping it in a dry place especially arranged for it.

We have experienced men to do our sorting, and every bushel will be looked over carefully before it is sent out.

Great strides have been made within recent years in the yield of corn, which are due to the selection of better seed and to the better tilling of the soil.

The possibilities in corn growing have been demonstrated in the Ohio Corn Growing Contest that has just closed. More than a thousand Ohio boys and corn enthusiasts have made a sight-seeing excursion to Washington and other Eastern cities, as a result of the movement on foot within the state to better corn yields.

The boy who took the grand prize for the greatest yield, raised 153.47 bushels of corn on one measured acre of ground.

While it is not possible for everyone to have such a marvelous yield, he, at least, has demonstrated the fact that better and more carefully-prepared soil, with "PURE FIELD SEEDS" will bring a better net income for the labors on the farm.

Our Yellow Dent has been bred up from the Funk variety of corn and has been thoroughly acclimated. It produces a long ear with a thin cob, deep grain of a deep yellow color. It was thoroughly ripened in the field and shows a strong germination quality.

Our White Cap is equally well developed, is perfectly true to name, and well dried.

St. Charles Red Cob is an ensilage corn that has become very popular throughout Ohio and other states where silos abound. It grows very large fodder and a large ear of corn; just the kind that will fill your silo with nutritious feed for the dairy cow.

### A FEW FARM FACTS AND FANCIES

We find in farm crops:

- That, One ton of Timothy hay contains 10 lbs. lime.
- One ton of Clover hay contains 40 lbs. lime.
- One ton of Wheat straw contains 7 lbs. lime.
- One ton of Oats contains 9 lbs. lime.
- One ton of Corn fodder contains 11 lbs. lime.

Now, when you are continually taking out of the soil where there is a limited supply, the soil soon becomes exhausted; consequently liming is a factor requiring much consideration on the part of many farmers.

### HELPFUL RULES

To find the number of bushels in a bin, take four-fifths of the number of cubic feet and the result will be approximately the number of bushels.

To find the capacity of a tank, multiply the number of cubic feet by seven and one-half and the result will be gallons.

A foot of lumber is one foot long and one foot wide and one inch or fraction, thick.

If hay is sold in the mow or stack where the weight must be estimated, you may get an approximate estimate by finding the number of cubic feet in the bulk and dividing it by 400 if it is Timothy well settled, or by 500 if Clover, or if it is new hay not settled, by 700 and the result will be the approximate number of tons.

### Too Commercial.

Bobbie—I saw you kissing sister again last night. Simon—Well, I'm not going to pay you a quarter this time. Ten cents is enough. Bobbie—That's the tendency in these days, to cut out the middleman and let the goods go straight from the producer to the consumer without charge.—Life.



## BIG TYPE POLAND-CHINA HOGS

### A Few of Our Spring Gilts

We are breeders of the Big Type Poland-China hog, and our endeavor is to produce a hog of good size, an easy feeder, and one that is profitable in every way. We have, therefore, guarded against the rough, coarse hog that will not fatten at a reasonable age.

Our brood sows are sired by such noted Big Type hogs as Big Dawson, Rubel's Giant Price, Pawnee King, Illinois Giant, Big Chief and Longfellow's Special. They are: Lady Woodrow, Herd Queen, Missouri Girl, Iowa Lady, Lady Lewis, Fancy Orient, and Wondermaid's Prize.

We always aim to select our breeding stock from the most prolific strain to be found, keeping well in mind, size and quality.

A good standard for every one in selecting a brood sow is to get an animal that will develop into a sow weighing 600 pounds or over, in fair flesh.

She should have plenty of quality with her size to give her the easy-feeding characteristic that counts on the profitable side.

Frequently a litter of Poland-Chinas farrowed in the spring, is driven into the ring of a pig sale, weighing a ton. Contrast the half-year's work with such a sow, with the possibilities of a cow, a mare, or an ewe, when used for market purposes.

The growing of pork on our high-priced land is unquestionably a paying proposition. Pork prices have been high for a number of years and it is the unanimous opinion of the hog growers that the prices will rule high another year.





### IOWA GIANT

**IOWA GIANT—91029.** Here we are with a great young boar. He has a very heavy bone, good head and ears, extra strong arched back, excellent feet. He is perfectly smooth and not a wrinkle on him, and will easily make a one-thousand-pound hog at maturity. He is the hog that Dudley Damp said was one of the best pigs in Iowa.

Fully as much could be said of other individuals in our breeding herd, but space will not permit.

The only hog in existence that can vie with, or surpass the Big-Type Poland China in the economical and profitable production of tender, juicy, delicious, or delicately flavored meat, or as a larder, is ANOTHER BIG TYPE POLAND-CHINA HOG.

We are in the Big Type Poland-China business, and desire to continue in same. We have long ere this realized that our permanency will only be assured by making a lifelong friend of every purchaser, and this only by giving you your full money's worth.

It is an assured fact that you will want the Big Type Poland-China breed sooner or later. We wonder why not buy now and realize some of the joys of being early in the game? Our stock is of the best in the land; not loaded with fat, but in a thrifty, growing condition, and will certainly do well for you if you buy them.

Profit is not our whole aim. We want to sell you stock that will insure your confidence and friendship, at a price that will be wholly within your reach.

If in the market for Big Type Poland-China hogs, tell us what you want and we will be glad to quote you our prices and give full description.



### **WONDERMAID'S PRIZE**

**WONDERMAID'S PRIZE—191796.** She is strictly a Big Type sow, with plenty of quality, good arched back, well sprung ribs, smooth coat and as black as a crow. There were ten pigs in her first litter, and she now has twelve by her side and there is not a runt in the bunch. You will want some of her pigs when you see them.

Our herd of brood sows is composed of individuals sired by some of the best type sires and dams found in the leading herds in the States of Iowa, Illinois, and Ohio.

It is an established fact that all other breeds and sorts are fashioned after the Poland-China.

### **CARE AND FEED**

The brood sows require an extra amount of bone-making feed; among the bone-making materials are: Wood ashes, charred corn cobs, lime and bone meal.

It has been shown that the younger the pigs or shoats are, the larger should be the amount of protein in the feed.

Some of the grains and feeds that are rich in protein are: Rye, barley, ground oats, bran, middlings, clover hay, alfalfa hay, gluten meal, blood meal and digester tankage.

The principal carbo-hydrate or fat-producing grain is corn, and should be balanced with the protein substances in proportion to meet the requirements relative to the growth or fattening of the hog.

A highly protein feed-balancing ration with alfalfa and clover hay during the winter season, when they cannot reach the pasture, is found to be one of the greatest aids in raising hogs.

This feed fosters good sized litters of strong constitution and of large pigs. As one breeder states, they are one week old at farrowing time, so great is the difference. This clover or alfalfa can be fed, either as a ground feed in a slop, or run through a cutting box and cooked in a heater, or fed as a raw hay, where it is properly cured. They will eat it with the greatest relish.

Also oats and barley ground together make an especially choice feed for both brood sows and growing pigs. The feeding of the brood sow while she is carrying her farrow, contemplates the feeding of the unfarrowed litter, which must have its growth from proper feed essentials to contribute to the best results.

During the cold weather, the feed should be cooked or heated, for they show a real enjoyment for hot feed, whereas a cold feed in bitter weather will be eaten hurriedly, and when through, they will rush to their pens, or sleeping places with their backs up, showing no pleasure nor comfort in eating.

## A FEW VALUABLE HINTS IN CARING FOR HOGS

### Guard Against Lice

Fall pigs are likely to become infested with lice. The best time to get them off is before they are born, by applying louse killers to the sows. Crude oil or coal tar dips will do the business.

Spray them in a close pen, sprinkle them while drinking slop, or dash them while they crowd into a corner.

### A TREATMENT FOR HOG PARALYSIS

"When a hog becomes paralyzed in the hind parts, give a physic of castor oil or Epsom salts and then feed milk, middlings and lime water in the form of slop," says the Farm Journal. "Add green cut fodder, roots or grass. Once daily rub the loins with Druggist's Soap liniment.

"Give the hog a fluid extract of nux vomica, starting with three drops twice daily and increasing the medicine a drop at a dose daily until alarming symptoms are seen or the hog gets up, at which stage, go back to the first dose and repeat if thought necessary.

"The condition is due to pampering, lack of exercise, and over-feeding. Stuffing of corn is most likely to bring it on. The tendency to the disease is hereditary in sows from pampered stock."

### FORMULA FOR HOG WORMS

Since many hogs are infested with worms, the following formula, which has been used by many hog raisers with considerable success, is suggested by the Kentucky Experiment Station:

"Santonin .....	2½ grains
Areca Nut .....	1 dram
Calomel .....	1 grain
Sodium Carbonate .....	1 dram

"This is sufficient quantity for each one hundred pounds of live weight and the dose should be given in slop in the evening after the hogs have been without food for from twelve to twenty-four hours. The following morning each hog should receive a tablespoonful of Epsom salts.

"The farmer who fails to post himself on the best proved plans for the greatest profit in the hog business will be handicapped under present conditions of the times."



## TESTIMONIALS

---

Parkers Landing, Pa.

A. C. Hoyt & Co., Fostoria, O.

Dear Sirs:—I have purchased clover, Timothy and seed oats from you for a number of years and have always found them as recommended, and shipment very prompt. I take pleasure in recommending them to others.

Yours truly,  
G. M. DUNLAP.

---

New Plymouth, O.

A. C. Hoyt & Co., Fostoria, O.

Dear Sirs:—I have bought my grass seeds from you for the past five years. Last year at one time I bought \$200.00 worth of grass seed of you for The New Plymouth Grange and all of our patrons were well pleased with the seed you shipped us, the fair treatment and prompt shipment.

Yours very truly,  
MODE CHERRY.

---

Union City, Pa.

A. C. Hoyt & Co., Fostoria, O.

Gentlemen:—Seeds arrived O. K. and are fully as good as samples, and we are well pleased; in fact, we never saw better. Will remember you when we want more.

Respectfully,  
JAS. G. HUMES.

---

Pentress, W. Va.

A. C. Hoyt & Co., Fostoria, O.

Dear Sirs:—In reply to your inquiry, will say the grass seed ordered from you some time ago was first class in every respect, fine large seed and as clear of weed seed as I could buy any place. And I can heartily recommend all seed buyers to A. C. Hoyt & Co. for fair treatment and promptness in shipping.

Yours very truly,  
D. C. CORE.

Morgantown, W. Va.

A. C. Hoyt & Co., Fostoria, O.

Dear Sirs:—I have bought field seeds of you twice; the first, two years ago, and the last, this winter. The seeds were all fine, and the clover seed that I bought first and sowed brought a fine crop of clean clover, true to the name, and the last looks good but have not sowed it yet.

The Timothy, I believe, is the nicest I ever bought. The seeds have always been shipped promptly, and received in good order.

Your customer,  
GEO. D. BRAND.

---

Fostoria, O.

A. C. Hoyt & Co., Fostoria, O.

Dear Sirs:—Your field seeds have always been very satisfactory to me and I take pleasure in recommending your firm to those desiring to buy seeds true to name and of good germinating quality.

Our business relations have always been pleasant and perfectly satisfactory.

Yours truly,  
H. C. FRUTH.

---

Lynn, Pa.

A. C. Hoyt & Co., Fostoria, O.

Gentlemen:—I have used your seeds for a number of years and have always found them to be first class, A No 1. Last year I ordered for six of my friends here and they were all well pleased.

The keynote to the whole thing is: first, quality, and second, the price is right; in fact I have had merchants tell me we are buying seeds cheaper than they are.

In conclusion, will say I wish your business success and prosperity.

Very truly yours,  
J. WESLEY BAKER.

---

Kokomo, Ind.

A. C. Hoyt & Co., Fostoria, O.

Gentlemen:—Permit me to say I have been using your seeds for a number of years and have been quite well satisfied with them, and of course so long as I receive the same satisfaction as I have in the past, I shall be glad to continue buying from you.

Yours truly,  
THOS. E. McREYNOLDS,  
Sec.-Treas. Indiana Railways & Light Co.

---

Turtle Creek, Pa.

A. C. Hoyt & Co., Fostoria, O.

Dear Sir:—We have bought our seeds from your firm for the past six years. We have always bought your best and have always found them first class in every way, especially free from noxious weeds.

Very truly yours,  
S. C. BEATTY.

New Galilee, Pa.

A. C. Hoyt & Co., Fostoria, O.

Sirs:—For several years past I have been ordering clover seed of you for my neighboring farmers and my own use. I find your seed free from weed seed and always good. Your prices are right in accordance with the market, your shipments have been prompt and I have always had fair treatment from you at all times. As yet I have never heard a complaint from any one who got seed from me.

Respectfully,  
W. J. IMBRIE.

---

Machias, N. Y.

A. C. Hoyt & Co., Fostoria, O.

Dear Sirs:—The different grass seeds which I have purchased of you for the past two years have been first class in every respect.

You are a very satisfactory firm to do business with.

Respectfully,  
FRANK J. HUGHES.

---

Little Hocking, O.

A. C. Hoyt:—Two years ago I sent you an order for 10½ bushels of timothy seed and I think that every seed grew and it was very nice clean seed; a good deal of it was cut for seed this year.

Anyone wishing good clean seed, I would advise to purchase from A. C. Hoyt & Co.

Yours truly,  
C. H. GODFREY.

---

New Florence, Pa.

A. C. Hoyt & Co., Fostoria, O.

Dear Sirs:—The field seeds ordered from you are number one. I never saw any cleaner seed. Will always order from you as long as you send such clean seed.

Yours very truly,  
SAMUEL ANKENY.

---

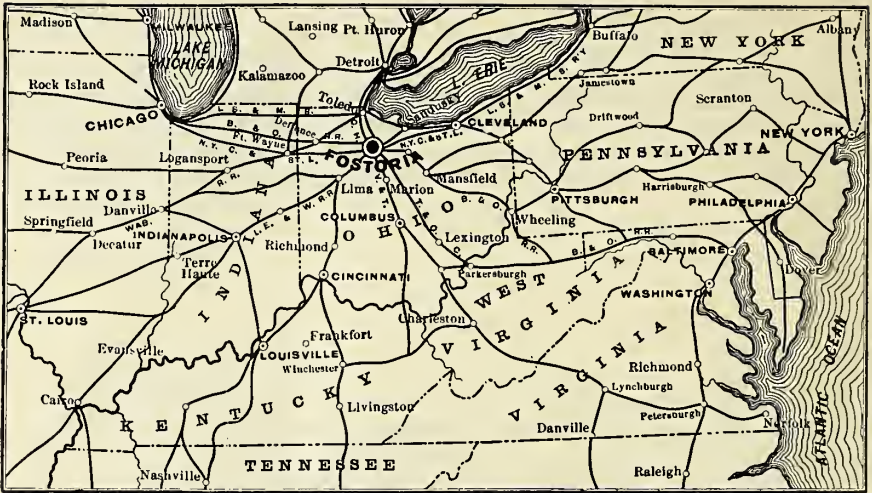
Dingmans, Pa.

A. C. Hoyt & Co., Fostoria, O.

Dear Sirs:—Seed reached me all O. K., all satisfactory. When I am in need of more seed you will receive my order.

Yours respectfully,  
RUSSELL SMITH.





Our location makes it possible for us to get the goods off to you same day order is received.

## TABLE

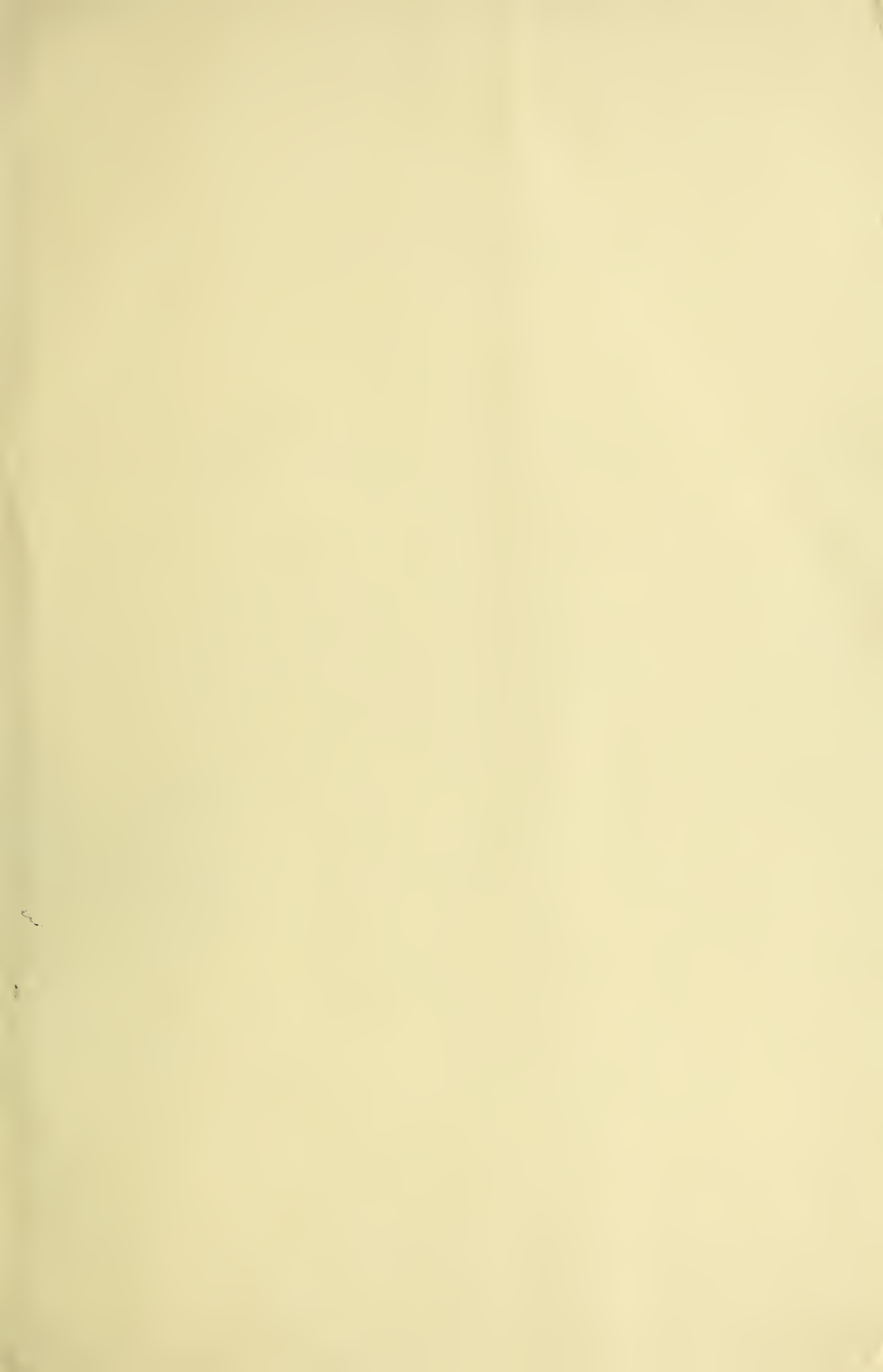
Showing the Amount of Seed Necessary for an Acre and Number of Pounds to Bushel.

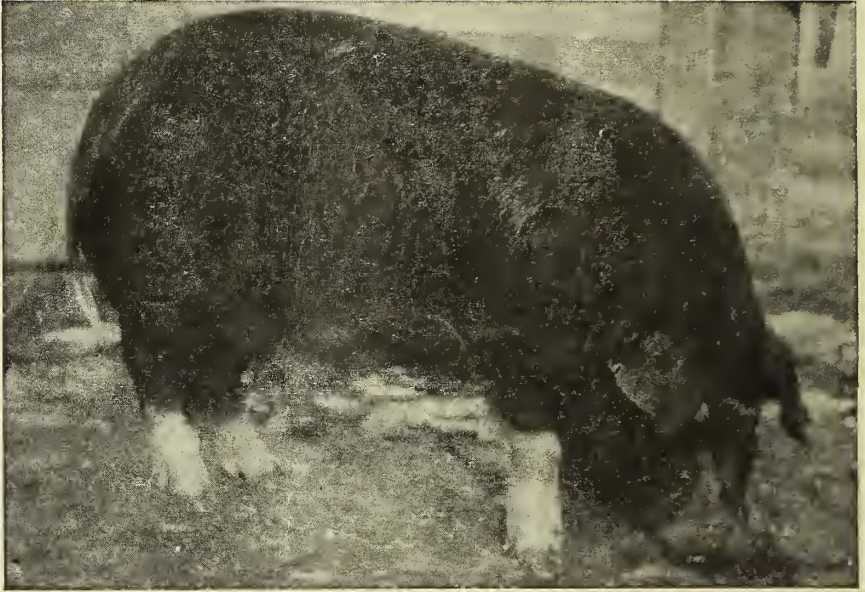
	No. of lbs. to bu.	No. of lbs. Acre		No. of lbs. to bu.	No. of lbs. Acre
Alfalfa .....	60	15 to 20	Meadow Fescue .....	24	15 to 20
Aliske .....	60	6 to 8	Millet, German .....	50	40 to 50
Barley .....	48	2 to 2½	Millet, Common .....	50	40 to 50
Blue Grass for Pasture..	14	20 to 50	Mixture for Pasture .....		30 to 50
Blue Grass for Lawn...1 lb.	for 15x20 ft. sq.		Peas, Garden .....		1 to 1½
Bermuda Grass .....		2 to 3	Potatoes, Irish .....	60	10 to 12
Buckwheat .....	50	1 to 1¼	Oats .....	32	2 to 3
Broom Corn Seed .....	48	4 to 6	Red Top Grass .....	14	15 to 20
Beans, Dwarf Garden... 60	1 to 1½		Orchard Grass .....	14	30 to 35
Brome Grass .....	15	20 to 25	Onion Sets .....		10 to 12
Clover, Red .....	60	8 to 10	Rye .....	56	1 to 1¼
Clover, White .....	60	6 to 8	Dwarf Essex Rape .....		6 to 8
Clover, Mammoth .....	60	8 to 10	Rye-Perennial .....	24	40 to 50
Clover, Sweet Hulled ....	60	20 to 30	Soy Beans .....	60	1½ to 2 bu.
Clover, Sweet Unhulled..	33	26 to 30	Seed Corn .....	56	4 to 6 qt.
Clover, Crimson .....	60	12 to 15	Sweet Corn.....46 broadcast		140 lbs. to acre
Canada Peas .....	60	150 to 160	Timothy .....	45	12 to 15
Cane Seed for Fodder ...	50	25 to 50	Timothy and Clover.....		8 to 10
Cow Peas .....	60	1 to 1½	Vetch, Hairy-Drilled (plus 1 bu. small grain)		60
English Blue Grass .....	24	30 to 40			60
Flax Seed .....	56	1 to 1½	Vetch, Spring-Broadcast (plus 1 bu. small grain)		60
Grass for Lawn .....	1 lb. for 20x25 ft. sq.		Wheat, Winter .....	60	1½ to 2 bu.
Hungarian Grass .....	50	40 to 50	Wheat, Spring .....	60	1½ to 2
Kaffir Corn .....	56	10 to 12			











**Iowa Giant 91029**  
**A Thousand Pound Prospect**

No matter where your farm is or the kind of soil you have, we can furnish you with the right kind of **Pure Farm Seeds** at prices that will save you many dollars.

A. C. Hoyt & Co., Fostoria, O.