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Wisconsin Agricultural Experimental Association
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TENTH ANNUAL REPORT

OF THE

WISCONSIN

Agricultural Experiment Association

ANNUAL MEETING

Madison, Wis., January 26, 27, 1912

ADDRESS OF PRESIDENT, SECRETARY'S REPORT WITH PAPERS AND
ADDRESSES GIVEN BY MEMBERS OF THE ASSOCIATION AND
OTHERS INTERESTED IN PROGRESSIVE AGRICULTURE

COMPILED BY

R. A. MOORE, *Secretary.*



MADISON, WIS.

DEMOCRAT PRINTING COMPANY, STATE PRINTER

1912

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LETTER OF TRANSMITTAL.

WISCONSIN AGRICULTURAL EXPERIMENT ASSOCIATION.

MADISON, WIS., 1912.

To His Excellency, FRANCIS E. MCGOVERN,

Governor of the State of Wisconsin:

SIR—I have the honor to submit for publication, as provided by law, the Tenth Annual Report of the Wisconsin Agricultural Experiment Association, showing the receipts and disbursements the past year, also outlines for experiments, and addresses and discussions given at the annual meeting at Madison, January 26, 27, 1912.

Respectfully submitted,

R. A. MOORE,

Secretary.

LETTER OF TRANSMITTAL

Very respectfully,
[Faint text, likely recipient name and address]

[Faint text, likely sender name and address]

[Faint text, likely date and location]

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OFFICERS, 1912.

President.....	C. P. NORGORD, Madison
Vice President.....	WILLIAM LEONARD, Jefferson
Secretary.....	R. A. MOORE, Madison
Treasurer.....	H. N. LONGLEY, Dousman
Clerk and Stenographer.....	NELL W. LORIGAN, Madison

COMMITTEES.

Program:

Officers of the association.

Executive:

Presidents and Secretaries of the County Orders of the Wisconsin
Experiment Association.

Resolutions:

J. B. Cheesman.....	Racine
H. P. West.....	Ripon
C. A. Lyman.....	Sun Prairie

Coöperative Experiments:

Farm Crops	R. A. Moore
Soils.....	A. R. Whitson
Farm Engineering.....	C. A. Ocock
Agricultural Chemistry.....	E. B. Hart
Agricultural Extension.....	K. L. Hatch

CONSTITUTION AND BY-LAWS.

CONSTITUTION

Article I.—Name.

This organization shall be known as the Wisconsin Agricultural Experiment Association.

Article II.—Object.

The object of this association shall be to promote the agricultural interests of the state:

1st. By carrying on experiments and investigations that shall be beneficial to all parties interested in progressive farming;

2d. To form a more perfect union, between the former and present students of the Wisconsin College of Agriculture so as to enable them to act in unison for the betterment of rural pursuits in carrying on systematic experiments along the various lines of agriculture;

3d. By growing and disseminating among its constituency new varieties of farm seeds and plants;

4th. By sending literature bearing upon agricultural investigations to its membership, and

5th. By holding an annual meeting in order to report and discuss topics and experiments beneficial to the members of the association.

Article III.—Membership.

Section I. All former, present and future students and instructors of the Wisconsin College of Agriculture shall be entitled to become members of this association.

Sec. II. Honorary membership may be conferred upon any one interested in progressive agriculture by a majority vote at any annual or special meeting of the association.

Article IV.—Dues.

A fee of fifty cents shall be collected from each member annually.

Article V.—Officers.

The officers of this association shall consist of a president, vice president, secretary, and treasurer, whose terms of office shall be one year or until their successors are elected.

Article VI.—Duties of Officers.

Section 1. It shall be the duty of the president to preside at all meetings of the society and enforce the observance of such rules and regulations as will be for the best interest of the organization; to appoint all regular committees as he may deem expedient for the welfare of the association.

Sec. II. In the absence of the president, the vice president shall preside and perform all duties of the president.

Sec. III. It shall be the duty of the secretary to keep all records of the association; to report the results of all cooperative experiments carried on by its membership and the experiment station, plan the experimental work for the members of the association, and labor for the welfare of the society in general.

Sec. IV. The treasurer shall collect fees, keep secure all funds of the association and pay out money on the written order of the secretary, signed by the president. He shall furnish bonds in the sum of two thousand dollars with two sureties, for the faithful performance of his duties.

Article VII.—Amendments.

This constitution may be amended at any annual meeting by a two-thirds vote of the members of the association present.

Amendment No. 1.—Adopted Feb. 9, 1906.

Any person residing within the state having completed a course in agriculture in any college equivalent to that given by the Wisconsin University may become a member of this association under the same regulation as students from the Wisconsin College of Agriculture.

Amendment No. 2.—Adopted Feb. 11, 1909.

Any County Agricultural School within the state may be admitted to membership of the Experiment Association upon request by the principal of such school and the payment of an annual fee of \$1.00.

BY-LAWS.

Article I. The officers of this association shall be elected by ballot at the annual meeting.

Art. II. The president and secretary shall be ex officio members of the executive committee.

Art. III. This association shall be governed by Roberts' Rules of Order.

Art. IV. All members joining at the organization of this association shall be known as charter members.

Art. V. The time and place of the annual meeting shall be determined by the executive and program committees.

Constitution adopted and organization effected Feb. 22, 1901.

TENTH ANNUAL REPORT

OF THE

Wisconsin Agricultural Experiment Association

PRESIDENT'S ANNUAL ADDRESS.

C. P. NORGORD, MADISON.

The past fifteen years has witnessed the discovery of a number of botanical principles which have been of great benefit in the improvement of agricultural plants.

In Mendel's law this was brought to light. By means of this law, we are able to unite valuable characters possessed by different plants by hybridization and to segregate and separate these characters in the offspring and thus make stable the progeny of such crosses within reasonable periods of time.

DeVries, a Dutch botanist, discovered that new characters arise from common plants suddenly and remain permanent in the form in which they thus suddenly appeared.

Probably the most useful and important of these principles is the discovery made by Dr. Hjalmer Nielsson, of Svalof, Sweden; and Prof. Wm. Hays, of Minnesota. This discovery is the fact that every individual plant growing in any field from any variety of plants is an individual entirely separate and different from its neighbors in its characteristics, qualities, and yielding power. A further important part of this discovery is the fact that each plant transmits to its progeny perfectly and regularly every characteristic that it possesses.

Every common variety is therefore a mixture. It consists of innumerable distinct and different strains each of which differs from the others in many particulars. If a short strawed, stiff strawed, large headed strain of oats is desired a plant fulfilling these requirements can be found in the fields

sown with some of our common varieties. If a heavy yielding, high protein strain of barley is desired, it can be found on the fields sown with some common variety of barley. Since these individual plants breed true to themselves, to breed a new variety possessing any desired characteristic it is only necessary to search for a plant having the desired characteristic and to propagate a new pure strain in its progeny.

This principle underlies nearly all of the important methods of improving crops by selection and breeding at this and other Stations throughout the world.

The work of improving the field crops has therefore consisted of searching for high yielding and desirable plants and of propagating from each of these plants new, pure and highly yielding strains. This is the principle also upon which the Wisconsin system of breeding is based.

By this method the Department of Agronomy of the Wisconsin Experiment Station has discovered and bred sixteen high yielding strains of barley, five strains of oats, four strains of rye and sixteen strains of wheat.

What will be the effect on the state of introducing these high yielding strains of grain throughout the state? Reports from members of this Association and results of tests on the Agronomy fields indicate that the pedigree barleys, pedigree oats and pedigree ryes will out yield common varieties by a margin of approximately seven bushels per acre. We are annually producing 816,000 acres of barley in Wisconsin. When we shall have replaced present varieties with pedigree varieties in the state we will have increased the yield of barley by 5,700,000 bushels, a value of \$2,850,000 annually.

No. 7 corn has out yielded common varieties throughout the state by ten bushels per acre. The Golden Glow corn has yielded eight bushels more per acre than any other variety. We are annually growing approximately 2,000,000 acres of corn in Wisconsin. When we shall completely have replaced scrub varieties of corn in Wisconsin with these pure high yielding strains we shall increase the annual yield of corn in Wisconsin by 20,000,000 bushels or a value of \$10,000,000 increase annually in the Wisconsin corn crop due to the breeding and dissemination work of the Wisconsin Experiment Station.

While the breeding of these new varieties is the fundamental work nevertheless there is a long step from the breeding of a variety to its location on the soil and in the climate to which it is adapted.

It is a long and difficult step from the production of a variety to its acceptance by the majority of the farmers of a state and to its permanent establishment as one of the standard varieties of the state. Many seed breeding stations have failed to appreciate the importance of this part of the work and have thus failed to secure the confidence of the people in their work, and to obtain the large place in the practical world for the good varieties which by diligent, painstaking effort they have produced.

The stations which have signally succeeded in placing their new varieties in the hands of the farmers are those that have established distributing associations similar to ours. In Sweden the Svalof Seedbreeding Institute has wonderfully improved the conditions of cereals by its productions and introductions through the Swedish Seed Breeders' Association. Grains have been found adapted to the various climates of that northerly country and to the variations, elevations and soils there found. In Canada the Guelph and Ottawa Stations have accomplished a great work. They have distributed their seeds through the central experimental farms and the Dominion Experimental Union. Through this work the varieties of farm crops have been completely changed. Even we in the United States have seen the effect of this work in the Baxter Barley and Preston Wheat.

Our Neighboring Stations. The Minnesota Experiment Station has accomplished a great work in originating the Hays Systems of Breeding. This system has furnished the fundamentals of nearly every system of breeding used in the United States. The varieties bred at the Minnesota Station have out yielded and replaced common varieties in Minnesota. Yet the work of this station would not have been effective had it not been for the support and means of distribution found in the Minnesota Crop Breeders' Association.

The Wisconsin Station in breeding work accomplished need take no backward place. Its varieties are more widely known and more uniformly liked than those of any other Station. If we are to judge by the places taken at our fairs we have

reason to feel proud of our record. Yet the recognition this work has received and the rapid distribution which has been accomplished could not have been possible without the loyal support of this association.

We are therefore one of the five great seed distributing organizations of the world, connected with the five great seed breeding stations of the world. When we understand correctly our position in the world of plant improvement we quickly realize, that we need to consider more carefully our opportunities and duties for the future and lay plans for a greater work in the future than we have done in the past. We no longer need work with varieties of poor breeding and minor importance. We are now fairly launched in the work with the new pedigree varieties. The breeding work of this Station is continually going on; each year will see the distribution of new varieties. The future will no doubt see varieties bred which will be more desirable and have higher yields than any thus far put out.

We have in our great State a variety of altitudes, latitudes, soils and conditions of moisture. The work of other Stations shows that certain strains are adapted to certain particular climatic conditions. We must expect the same in our work; we must expect that certain strains will be adapted to clay soils and others to sandy soil; that others will be adapted to high altitudes and others to lowlands; that certain strains will be adapted to northern latitudes and others to southern latitudes. This condition places a great responsibility and a great work upon this Association and in the hands of each individual member for it must of necessity be through the Association that we shall discover the facts and properly locate these strains. We therefore must have accurate work and absolutely true reports in regard to yields, soils and location. Let no fancied desire for a favorable report by the officers of this association lead you to report otherwise than the exact facts. An unfavorable report shows to us what conditions are unfavorable to a certain strain and is therefore just as valuable as a favorable report. Let us not forget that we have a great work to do.

We need the public sentiment, moral support and the truthful, effective advertising for our seeds that this Association of 1,500 young, trained and active farmers can give.

We need the entire strength of this organization to help in the sale of our seed grains.

The time has come when in addition to studying methods of increasing our crops we should also work hand in hand for the solution of the mighty problems confronting us in the successful marketing of our products. We must properly and judiciously advertise our products. A new and effective means of bringing our products to the buyers and at the same time disseminating useful information lies in the seed car. We have just closed a very effective campaign with this at various points in the State. This work has been made possible by the increased appropriation which the last legislature made for us, in the magnificent aid from the railroads, the Wisconsin Advancement Association and the Experiment Station.

Our seed lists are this year more complete than ever before. In spite of an adverse fall for seed corn we see quantities of seed corn for sale in three hundred to eight hundred bushel lots. These lists have been published and sent broadcast throughout the land and through these great demands great markets and good prices are being found. The splendid exhibitions of our grains have attracted world-wide attention. Our grain this year went to Russia, South Africa and many other foreign countries as well as to all parts of our own country. Let us have larger amounts for sale in the future and more of the same good work.

We have met here to-day, the one great organization in Wisconsin whose sole purpose is the promotion and improvement of general agricultural crops. We have met as one of the few great organizations of this kind in the world. The annual value of the agricultural crops in the state amounts to nearly \$150,000,000. The live stock industry is likewise important and has done a great good for the state in building up our soils and promoting the prosperity of our people, yet after all the crops are the feeders of the world. They are fundamental. We have therefore a great work to perform. On the morning of the great battle of the South Sea Admiral Togo signalled this motto to the ships of his fleet—"The fate of our nation depends on this day's action." The battle was won and Japan became a great world power. When Lord Nelson went out to meet the dreaded Spanish Armada he sig-

nalled to his men "This day England expects every man to do his duty." So let the annual meeting be the signal to our members of a new awakening to the proper realization of the function of our association and the importance and world-wide relation of its work and with this high ideal before him let each member go back to his work to properly plan and execute, that a full measure of prosperity, and usefulness may be ours.

REPORT OF THE SECRETARY, 1912.

R. A. MOORE.

Fellow Members of the Experiment Association:

For eleven successive years it has been my privilege to present this annual message and never during this period has there been a single doubt in my mind as to the great achievements that would be accomplished by this body of trained men in displacing the scrub grains of Wisconsin and in their stead place the pedigree strains within easy reach of every farmer of the state. For eleven years this work has been in progress and many of you are becoming veterans in the fray for seed grain improvement. Many of you who started in in a feeble way, merely establishing a seed grain center here and there, are now putting on the market thousands of bushels of pedigree seeds to bring better returns to every farmer who grows them.

We are living in a changeable and reckless age. The rapid increase in cost of living has set men to thinking seriously as to the best possible method to pursue to alleviate the suffering occasioned by the constant increase in price of all necessities of life. The high water mark has not as yet been reached. People in the past decade have been on the search for ease and luxuries, hence have left the farms for a more congenial and pleasure seeking life in the cities.

A hundred years ago approximately 90% of our population were upon the farms assisting in production—at the present time I think less than 40% are upon the farms assisting in producing for the other 60% of the population. It doesn't seem with the decrease in population from our productive element that prices on the necessities of life are to wane in the

least but keep on soaring. I am firmly convinced, as I never was before that happy is the man who owns a farm and produces largely the necessaries of life for his family.

I think through our efforts the past 10 years that we have built up an industry in the pure-bred seed work that will be an inducement for many of our young men to stay on the farm who would otherwise leave for inducements held out by the cities. In other words, I think the association has been instrumental in paving the way for opportunities for the young men on the farm.

CALL FOR PURE BRED SEED GRAINS.

The great call for seeds the past year and the prospects for selling great quantities this year are very encouraging. The European countries after testing the Wisconsin pure bred seeds are now sending in substantial orders. The little German province in South Africa after testing the most promising varieties of corn in the United States, found that the Wis. No. 1, 7 and 12 met her requirements and last July a shipment of seed was made to that far away country to be planted November 1st. Many of the members of the association are selling annually from one to ten thousand dollars worth of pure bred seed grains, thus the good work goes on and the Wisconsin pedigree seeds are being shipped to all parts of the world.

THE EXPERIMENT ASSOCIATION WIDELY KNOWN.

I am pleased to report that the work of the Association is widely known and appreciated. People especially interested in the work, from foreign countries as well as from the states have visited the Secretary during the past year and secured full information as to the working and management of the Association. It has been the privilege of your Secretary the past year to help organize a similar association for upper Michigan, Lower Michigan soon followed suit and organized, also Massachusetts and several other states have put in organizations closely allied to ours and with the same noble purpose in view. I feel that it would be a great advantage to every state in America to have an Experiment Association with the aims and purposes of ours. Some of our members may feel that as soon as other states are organized that the call for ped-

igreed seeds will cease. Not so—every time a state organizes an additional call for seeds will come streaming in for our association seeds.

BREEDING WORK AT THE STATION.

The breeding work at the station is being pushed vigorously and seeds of different varieties of plants are reaching the point for dissemination. This year the Wisconsin pedigree oats upon which the station has put 14 years work will be disseminated throughout the state and in 1913 grown in large quantities. By a continuous process of improvement on farm seeds the rapid method of dissemination and the great quantities that can be grown by the association will always make Wisconsin the leading state in America for pedigree seed grains. Our watchword should always be "Quality of seeds and fair dealing".

MEMBERSHIP.

The membership has gradually increased, and January 1, 1912 reached the 1348 mark, an increase of 32 over that of 1911. There are more members of the Association than the number given as we have only counted those whose dues have been fully paid within the year. We have no dead timber in our association, all are live and enthusiastic workers in the cause for better seed grains.

ORGANIZATION OF COUNTY ORDERS OF THE EXPERIMENT ASSOCIATION.

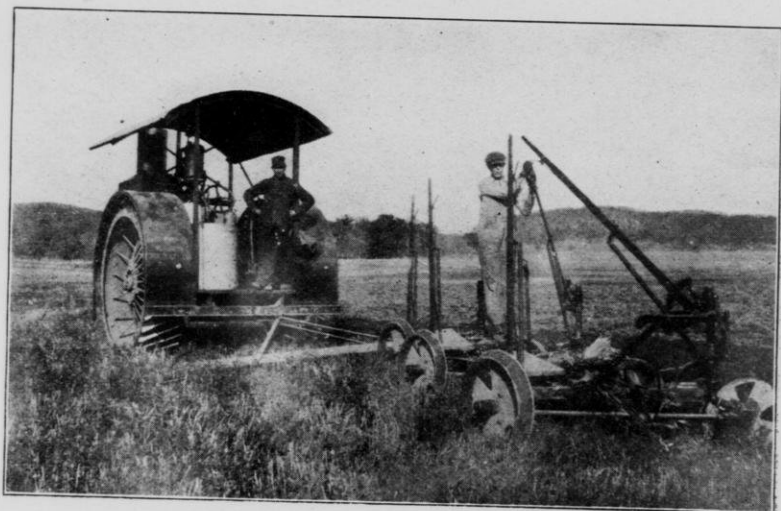
The number of counties under organization has increased from 7 to 27 since our last meeting and we look for a very substantial increase from this on. The cities have become interested in the work of the County Orders and are offering assistance and encouragement. The St. Croix County Board appropriated \$100 to aid the County Order in placing a commendable exhibit at the State Fair in 1912. Other counties will do likewise as soon as they find out about the nature of the good work undertaken for the general good of the county in which the Order is located. The County Orders are prime movers at all agricultural meetings and have been instrumental in doing great work for the uplift of the County Fairs. The work of the County Orders in systematizing the growing





VALLEY VIEW FARM.
Home of Tracy Randall.

This beautiful farm is pleasantly located on the north bank of the Baraboo river $3\frac{1}{2}$ miles west of the city of Baraboo and is owned and operated by C. W. Randall assisted by his son Tracy. Shropshire sheep, Guernsey cattle, Shetland ponies and White Wyandotte poultry are specialties on the farm. The son Tracy is making a specialty of pure bred seed grains on the farm. excellent service in banishing scrub grains from the entire neighborhood. For two years he has won first honors in the corn contest and has received scholarships in the Young Peoples' Grain Course given at Madison. He is also a member of the Wisconsin Experiment Association and has taken many prizes in the annual grain shows. The Association regards him as the leader among the younger pure bred grain growers of the state.



PLOWING ON THE OSCHNER FARM.

Home of A. C. Oschner, Sauk county

This beautiful farm is considered one of the most fertile farms in Sauk county and has been kept so by rotation of crops. Mr. Oschner is a former student of the College of Agriculture and has always been an active member of the Experiment Association. He is known far and near as one of the foremost growers of Golden Glow seed corn and has been instrumental in disseminating this high yielding corn well over Sauk county.

and dissemination of pedigree seeds has been of lasting benefits to the respective counties in which they are located.

The County Orders exhibited at the State Fair and put up the greatest display of select grains and forage plants wit-



THE COLLADAY FARM.

A field of Silver King Corn, Wis. No. 7

This beautiful farm is pleasantly located on the west shore of Lake Kegonsa, Dane county and is owned and operated by our veteran pure bred seed grain grower Mr. William Colladay. Mr. Colladay takes great pride in the select seed grain work. He is regarded as one of the most conscientious and painstaking seed grain growers of the Experiment Association.

nessed in the history of State Fair exhibitions. The great work should continue and we trust the Experiment Association will make the Wisconsin State Fair known throughout the world for its exhibits of pure bred seed grains. In order to make the State Fair exhibits of farm products commensurate with the great industry it represents our association has

asked the Governor to appoint a representative of our association on the State Board of Agriculture.

NATIONAL EXHIBITIONS.

The National Corn Expositions and the International Barley exposition have been held since we last met, the former in Columbus, Ohio and the latter in Chicago. The Experiment Association and the College of Agriculture made joint educational displays at these expositions which won the admiration of competitive states. The Wisconsin Pedigree barley won first place in both National and International contests, placing our barley well in the lead of all rivals. The individual exhibitors made fine records for the state at these expositions and won for us highest honors.

THE LAND SHOW.

The Experiment Association took an active part in the coöperation with the Emigration bureau in putting up a great display of grains and forage plants at the International land show. It was conceded by all to have been the best display of seed grains ever witnessed and was instrumental in advertising Wisconsin seeds far and near.

AN EXHIBIT ON WHEELS.

In coöperation with the National Crop Improvement Association and the College of Agriculture a tour was made through ten counties with an educational exhibit of pedigree seeds. Meetings were held at the following places along the route:

Platteville, Darlington, Brodhead, Janesville, Elkhorn, Waukesha, Fond du Lac, Beaver Dam, Watertown, Richland Center and Madison. In those counties where no County Order existed one was formed and everything possible done to start them right by giving the experience of County Orders in the past and encouragement for the future.

CORN.

Silver King (Wis. No. 7)

Number members reporting.....	127
Average per cent germination of seed.....	96%
Number reporting corn as well matured.....	134
Number reporting corn failure to mature.....	17
Average yield per acre No. 7.....	62.6
Average yield per acre other varieties.....	54.8
Difference in yield in favor of No. 7.....	7.8

GOLDEN GLOW (Wis. No. 12)

Number members reporting.....	122
Average per cent germination of seed.....	95.6%
Number reporting corn as well matured.....	105
Number reporting corn failure to mature.....	17
Average yield per acre No. 12.....	60.12
Average yield per acre other varieties.....	56.8
Difference in yield in favor of No. 12.....	3.3

PEDIGREE BARLEY.

Number members reporting.....	231
Number reporting that barley remained erect.....	174
Number reporting that barley lodged.....	57
Number reporting that barley developed smut.....	79
Number reporting that barley was not smutted.....	152
Average yield of Pedigree Barley.....	30.71
Average yield of other varieties.....	27.35
Difference in favor of Pedigree barley.....	3.36

PEDIGREE FALL RYE.

Number of members reporting.....	46
Average yield per acre Pedigree rye.....	24.5
Average yield per acre other varieties.....	19.96
Difference in favor of Pedigree rye.....	4.54

ADDRESS.

HON. DUNCAN MCGREGOR, MADISON, WIS.

Mr. President and Members of the Wisconsin Experiment Association, Ladies and Gentlemen: In the absence of Governor McGovern I appear before you to discharge a duty that cannot be pleasing to you. He who brings unwelcome tidings can hardly expect a warm welcome. I am exceedingly sorry to be obliged to present his regrets. Misery is said to love company, and it may comfort you to know that I keenly share in your disappointment. I fully realize too as you do that a heavy responsibility rests upon any one who would appear as a substitute for our eloquent and popular executive. I bring you greetings from the Governor together with the assurance that he sympathizes with you in your great work.

I think it was Dean Swift who made the remark, no less wise than witty, that the most dangerous animal abroad is the man who undertakes to talk and has nothing to say. The man who undertakes to talk with nothing to say that is suitable to the occasion is equally dangerous, for in each case there is a misfit, a discord, that endangers both patience and temper. It would add much to my comfort, as I know it would to yours could I feel that I had anything to add to the rich store of valuable knowledge you have acquired through the process of ex-

perimentation in which you are engaged. For fifty years past whatever farming I have engaged in has been at long range and by proxy at that. True, the garden and the lawn, with their shrubs and vines and flowers and fruits and vegetables, have never ceased to call me, and I have never dreamed of disobeying that call. The farm is or ought to be a garden on a large scale, but it may not be safe to assume that the garden is a farm on a small scale. Regularly in my experience as the spring approaches catalogues are perused, orders of seeds and plants and trees are made, planting is done, fitful cultivation follows, and then the harvest. But let us pass that lightly, for usually the harvest is light,—at least not up to expectations. But though crop returns may be small, there are large returns in enjoyment, and in rich blood and fairly good brawn. You observe that I say nothing of better brain, and for the reason that we know personally very little about that organ. That we have a brain is largely a matter of faith. We infer that we have one because other people are so equipped. We are even without the means by which Carlyle first learned that he had a stomach. It is more than likely, however, that whatever passes for brain will be of more value to the owner and to others when blood is rich and muscle strong. These,—health and strength,—are the chief rewards of the amateur gardner, and that is enough.

But fifty years ago I, too, was a farmer. At least we called it farming in that day. We plowed and harrowed the ground, much of the power being furnished by the patient ox; the stimulus by the gad in the hands of the impatient driver; we sowed the seed broadcast by hand,—the man who could use both hands had the advantage; we cultivated the corn by hand hoe and single shovel cultivator often with a boy for outrider; we cradled the grain while it sometimes happened that a rosy-cheeked young woman followed to bind into bundles. Everybody had to help to save the scanty crop. The young women could not help being rosy; the summer sun took care of that. It will do the same thing to others if given the opportunity. We stacked the grain carefully and fenced the stack yard from the depredations of stock until the threshing machine with its horse power could come our way and a threshing bee could be organized. To attempt to protect the grain from the ravages of rats and mice was useless. They got more than their

just due. We took the grain, what we saved of it, to the nearby grist mill as it was needed. That same grist mill is now a ruin if not a memory. The miller took his toll, and bran and shorts were returned with the flour. You need not be reminded that all this has been changed. Until you reach the very frontier or the lumber camp not a yoke of oxen can be seen, and even there they are very few. The wooden yoke and bows, and the strong but clumsy chain are treated as antiques. The grain cradle is a relic of a by-gone age; the steam or gasoline engine has superseded the horse power; the grain goes to the elevator and the flour is of the patent variety bought at the neighboring store and bears the brand of a corporation or great milling company. Expensive and complicated machinery has taken the place of the simpler implements of an earlier day. More and better work is now done in a given time and it is done much more easily than in times past. These changes have come as an evolution, that tendency to betterment that finds its chief stimulus in example, and in this case has been materially aided by the protection afforded by laws relating to patent rights. No man or set of men, no organization, no predetermined purpose can take credit for the advance to which I have referred. It has come as a part of the general improvement in industrial and economic life.

About 275 years ago the blind Milton in his tractate on education, in writing of sound knowledge, that is I presume knowledge that is fertile, that will not only endure, but like good seed increase, based it upon the trinity of activities, experiment, experience and observation. Milton was but repeating in different form what had been said by Lord Bacon but a few years before. Since that day of giant intellects, under the marvelous impetus they imparted, nature in countless ways has yielded to these three activities an unlimited wealth of material for man's delight as well as for his advancement. You, my friends, have come under the spell of the wonderful revelations that farm experiments accompanied by intelligent observation have yielded. Sciences have multiplied wonderfully with the experiments of later years. Instead of the original and broad generalization into physics and metaphysics, we have to-day a bewildering number of divisions and subdivisions, each rich enough and more than rich enough to engage attention for a life time. Physics has relinquished much of its

original content; it no longer claims undisputed authority over the material world, but leaves to other sciences, each a specialty, to consider the varied workings of nature. Division of the science of nature has kept pace with division of labor among industries and serves a like purpose. This work of building up a classification of knowledge that comes through experiment, by its very nature, must be slow. Three hundred years have been none too long for the achievement. The application of the sciences will without doubt be marvelously rapid. By subdividing the physics of the long ago it has become possible, even easy, to select from the vast array of subordinate or minor sciences such individual sciences as may serve the purpose in hand. The farmer, for instance, looks around for those particular sciences that give him better control of that complicated organism, the farm, and many of the sciences lend themselves to his purpose. There was a time when a farm meant little more than so much land, to be proved fertile or barren by a long term of cultivation, trying one crop and then another. To-day, before you plow a furrow, or trust the seed to your soil you can get a chemical analysis by experts that will show with the certainty of science for what crop your field is best fitted. What an advantage is here gained over the old method of trial and error! It took one year for each trial. You can now save years by the aid of chemical science that reports its conclusions in a few days at most. Further, at the same time you can learn what you must add to the soil to fit it for some particular crop. I understand that the science of analysis and preparation of soil has reached such a point that inoculation is resorted to for insuring the presence of bacteria suited to the desired growth. So a piece of land uncongenial to alfalfa is made hospitable by inoculation with sweet clover soil. The culture of clovers generally can be promoted by like treatment. Within comparatively recent years a compact has been consummated between clover and potatoes for the purpose of transforming the sandy loam of several counties in the center of the state into fields noticeable for their fertility. Some of us can remember when this same region was conspicuous for abandoned farms and was supposed to be adapted only to the culture of buckwheat and the white bean.

Prominent among the achievements of your Association and of immense value is the breeding of pure bred, a high type of seed. The farmer who is unfamiliar with the character of different seeds is likely to take simply what is offered without regard to its real value. At any of your stations he is gladly furnished with information enabling him to select seed, and I am informed that he is supplied, not unfrequently, with the very seed he needs. This high grade seed produces a more certain and more abundant crop and thus adds to the wealth of the community.

The art of irrigation is probably as old as farming. It was early learned that moisture was indispensable to most forms of vegetable growth. Ancient Egypt, the granary of the ancient world, long maintained its agricultural supremacy through the abundance of moisture furnished by the periodical rains or distributed as needed from her capacious reservoirs. Where distribution of water is not possible, seasons of drought bring disaster to both crops and herds. In some regions the rainfall is so limited that science has been enlisted to save loss by evaporation. As the result of experiments a new species of farming, called dry farming has arisen. Could we keep a blanket of cloud over a field deficient in moisture, what little water was in the ground would be protected from evaporation and thus be saved for use of the plants. Even the up-to-date farmer does not expect that he can command a cloud to save his crop, but he has learned to fashion a substitute. So he works the surface into a blanket of fine dust, which at once conserves the moisture and permits the air to reach the roots.

But I feel that so far as this audience is concerned I am simply bringing coal to Newcastle. You know these things much better than I do, for you have had an active part in making them what they are. The possibilities of further and greater achievements in these and many other lines are boundless. Your ambition and fitness for service in this great work is proved by the success already attained. Greater successes yet await you.

With most hearty thanks for your courteous attention, I wish you the reward that comes with successful effort directed in the interest of the greatest producing class in existence. "He who makes two blades of grass grow where there had been but one is a public benefactor."

ROTATION OF CROPS.

PROF. J. F. WOJTA, MENOMINEE, MICH.

It appears that the desire among progressive farmers for the practice of a careful and a systematic rotation in farm crops was never more evident than it is to-day. Good farmers realize that fields must be kept clean of weeds and insects, and the soils when farmed properly must attain the ability to produce a better crop from year to year, and they also realize that increased yields of crops due to proper rotations, should be commensurate with the effort expended in the work, and that proper rotation means the practice of cultivating an orderly succession of different crops on the same land.

If for example, we study the plant life growing in a given country or particular section of that country, we find that the nature of climate and soil, will largely determine what kind of plants are best fitted to grow there. Nature in her natural way, tends to rotate crops on the same piece of land in due course of time. When large trees of pine and hemlock in virgin forests are removed and made into logs, firewood and ties, or are destroyed by fire, the land does not remain long barren but will soon be covered by a thick second undergrowth of alder, poplar or balsam; the medium red clover in old meadows is frequently replaced by June grass; tame grasses in old pastures are giving away to wild grasses and weeds occasionally.

Early experiments made at Rothamsted by Lawes and Gilbert of England, have proven conclusively when wheat was grown consecutively for 62 years, the crop at the end of that time only yielded one-fourth as much per acre as where it was one of the members of a four year rotation on similar fields for the same time. In Minnesota, it was found where wheat was seeded for 12 consecutive years on the same field, it yielded seven bushels less and corn when planted on another field for 12 consecutive years yielded twenty bushels less to the acre than when crop rotation was practiced for the same time. Eighty per cent of total vegetable matter was lost in soil by twelve years consecutive cropping and only ten per cent was lost where a proper rotation was practiced during that time.

It is true, however, there are records where the same crops have been raised on the same fields for 14 or 15 years in succession and yet the last crop yielded almost as much as some of the earlier crops raised on that field. Abundant supply of moisture in worn out soils will bring about good results.

I desire to say to you members of the Wisconsin Agricultural Experiment Association and as growers of pure bred seeds, that you are particularly fortunate in being located in Wisconsin. Her geographical position, her soil and the temper of her people is by nature especially adapted to the growth of a large variety of crops. Not only will Wisconsin soils grow small grains, corn, grasses, clovers, root and fruit crops in large quantities, but your soils are of the kind that will produce improved quality of grain as well. It is during the long days of spring and summer with their abundant sunlight that the starch and sugar in the kernel, in the apple and in the root, are formed. For this reason the seeds are hardy, healthy and vigorous. The fact that the seeds grown in northern latitudes, will grow well farther south, but that southern seeds will not do as well in the north, should make Wisconsin farmers famous for the production of farm seeds, root, fruit crops and live stock.

Natural soils which have never been used for raising farm crops, usually contain humus,—a rich dark decayed organic matter and to a certain degree, it contains all the necessary elements to produce a paying crop. Of these nitrogen, phosphoric acid, potash and lime, are among the first to be depleted in the soil by crops. No matter how abundant the other elements in the soil are, if there is a deficiency of any one of those mentioned, that soil is considered poor. It is therefore the business of every farmer to know his fields and his soil as he would know a book, so that he may rotate his crops properly and maintain fertility and at the same time make the greatest profit from his crops.

It has been estimated that the tillable surface of an acre of soil generally contains about 6000 pounds of potash, 5000 pounds of phosphoric acid and about 3000 pounds of nitrogen. When a farmer sells crops which have been grown on the field, he is practically selling a portion of the necessary elements for plant life, as are found in the soil. In a ton of

wheat, a farmer sells 38 pounds of nitrogen, 19 pounds of phosphoric acid, and 13 pounds of potash. The fertility taken from the soil if replaced under normal prices would amount to \$7.91. By selling a ton of clover hay, he sells 40 pounds of nitrogen, 38 pounds of potash, 11 pounds phosphoric acid and 40 pounds of lime and this represents a loss to his field of \$5.10. Selling a ton of butter, his soil loses about 12 pounds of nitrogen, $4\frac{1}{2}$ pounds of phosphoric acid, and $3\frac{1}{2}$ pounds of potash. From this, it will be seen that by selling farm crops, the farmer will rob his soil of more fertility than by selling dairy products. Dairying should therefore occupy an important place in the system of rotation.

There are several things that may dictate the rotation of a crop on a given field. It must be considered, whether it shall be a money crop, a cleaning crop, a leguminous crop, a hay or grass crop. In what condition one crop will leave the soil for the succeeding crop and how one crop may be seeded with another crop. How to rotate so as to distribute labor throughout the growing season. How to maintain the supply of humus, and how to make good use of subsoil. For example, corn is a deep soil and coarse feeder, while small grains are shallower and close feeders. Roots and leafy crops are largely nitrogen feeders. Leguminous crops have ability to take free nitrogen from the air by their roots and enrich the soil. Some crops will do better on well drained soils and others will do better in low and moist soils. Peas, corn and potatoes possess greater ability to decompose or subjugate coarse and soddy soils than do wheat, barley or sugar beets.

Some good crop rotations for Wisconsin are here suggested:

1st year—Peas, corn, potatoes, peas, buckwheat.

2nd year—Wheat, sugar-beets, rye plowed under, oats, vetch (p) corn.

3rd year—Corn, barley, corn, clover, beans.

4th year—Clover or oats, clover, barley, pasture, rye.

The best farmer is he who understands best how to organize the facts of his farming and business into harmonious system or plan. The question whether one should raise one or two crops, rather than others, depends on many circumstances. Sometimes it becomes a problem as to the quickest way of obtaining some ready money. For this reason the tenant farmer is so destructive in his treatment of the farm while

the owner looks forward to prepare his land in best possible condition for future years. The farmer that he may succeed best must understand the physical condition of his soil, its fertility, its drainage and above all the kind of crop he aims to raise.

The advantages gained by rotation are numerous: chief among these may be mentioned, rotation is an effective war on weeds and weeds generally deprive the soil of much of its fertility. It kills many injurious insects and prepares the field for succeeding crops. It promotes tendencies for the preparation of available plant food for other plants and economizes labor. As members of rotation, corn, grain and root crops, cattle and clover cannot be surpassed as conservers and producers. Nature provided plants to feed animals, animals to produce fertility, the fertility to feed other plants. A rotation of this kind will preserve the elements of productive power, while climatic conditions are constantly at work changing their character and their ability to produce available plant food.

PROFITABLE SEED GRAIN ADVERTISING.

J. V. BEATY, AGRICULTURAL EDITOR, MADISON, WIS.

Advertising seed grain is profitable when done rightly. On the other hand if a person makes a few mistakes, he may spend more money for advertising than he takes in for seeds. A certain member of the Experiment Association advertised Wisconsin No. 7 corn in 1911 and actually paid \$1.20 in advertising for each dollar's worth of seed that he sold. Not a very profitable venture, this, but the reasons for this extra expense are easily accounted for. The member advertised too much and advertised in the wrong place. He advertised in a farm paper paying \$14, and made 20 sales as a result. This made each sale cost him an average of 70 cents. The advertising that increased the expense was done in local papers. \$4.50 was spent and only one sale made.

Set over against this was the splendid results obtained by Charles H. Howitt. He advertised corn in the same farm paper that the man who suffered a loss used, but spent only \$1.25

in each of two years. The first year he made 50 sales and the second year 75. The first year it cost him only $2\frac{1}{2}$ cents to make each sale and only 1.6 cents the second year. It cost him an average of 1.5 cents to sell each dollar's worth of seed that was shipped from his farm.

It is not so much my object to tell you the best ways of advertising as it is to inspire you to keep some record of the results you obtained through your advertising. A man does not always realize that it is time to improve until he knows that he is actually losing money. It pays to study the results of your own advertising and it is really not very hard to do.

If you advertise in one farm paper all you need to do to keep track of the results is to make a record of the number of sales and the number of dollars worth disposed of during the season leaving out, of course, any sales that you make by personal solicitation. It is reasonable to suppose that practically all of the sales that are made by mail are the result of advertising in the one paper.

Let us suppose that you make six sales and you pay out \$12 for advertising. This means that each sale cost you \$2. If you have kept a record of the amount sold to each person you may find that your selling has not been too high after all. Suppose for instance, that you sold \$100 worth of seed. It would then have cost you 12 cents to sell each dollar's worth. This is not as high as \$1.20 but still it is much above 1.5 cents. We must take for granted then that something is wrong in this particular case. I would suggest that the difficulty lay in the choice of a farm paper or in the way the advertisement itself was written. As a rule, a small advertisement in a farm paper will bring many more sales than large ads.

If you are advertising in more than one paper, the system of accounting is a little more complicated. In this case you must key the advertisement, in each paper in such a way that you can tell from every letter, which paper brought the inquiry. This keying may be done in several different ways. Usually the key is inserted in the address of the advertiser. For instance, in one paper you might write your address "John W. Brown, Box 25, Edgerton, Wis.," and in the other paper your address, "John W. Brown, Box 26, Edgerton, Wis." This would not confuse the Postmaster but would show you plainly which advertisement brought each inquiry. Another way to

key is to give a different "R. F. D." number in each advertisement. Some people put "Dept. F" as a key in one advertisement and "Dept. D" as a key in another. Another way to key is to write your name differently in one address than in another. For instance, if your name is "John W. Brown" you might write it "John A. Brown" in the second paper.

When the season is over you can take your pile of envelopes, which contained the letters of inquiry and separate them into two assortments. You will then learn which paper brought you the best results.

You must remember, however, that it is not always the paper that brings the most inquiries that gives the best results. The inquiries from some people may not result in a sale and of course the sale is the important proposition in advertising.

The possible mediums in which to advertise are naturally divided into several classes as follows: General farm papers, including such papers as the Wisconsin Farmer, Wisconsin Agriculturist, Orange Judd Farmer, etc. With the beginning of this year we have a corn paper. Its name is "Corn" and it is published at Waterloo, Iowa. No doubt this will prove an excellent advertising medium for a person having corn for sale. Another class of papers includes the Thresherman's Review of St. Joseph, Michigan, and the American Thresherman of Madison, Wis. These papers reach men who are interested in the grain crop and advertisements in them usually result in a good profit. If you have wheat, barley or oats for sale it might be well to advertise in some of the mill papers. The following is a list of the papers that are taken by millers throughout the United States. The Operative Miller of Chicago, Modern Miller of St. Louis, Millers' Review of Philadelphia, American Miller of Chicago.

Sometimes it is wise to advertise in a paper published in a foreign language. This is especially true if you are anxious to reach a class of farmers who take such a paper. As a rule local papers that cover only a small territory are not at all profitable advertising mediums. Usually all of the prospective customers in your own community will know of your seed without your advertising in the local paper. Then again the circulation is so small that you do not reach very many.

The experience of one Wisconsin farmer who advertised corn will suffice to show that local papers are very question-

able from the standpoint of profit. This advertiser used three local papers during two months and made only one sale during the whole time. Others have had similar experiences.

Wisconsin is specially fortunate in having a publication so closely connected with the College of Agriculture as the Wisconsin Country Magazine. It is taken by a large number of farmers who are interested in buying the best kinds of seed and because they see the advertisement in the paper published at the College, they rely upon its authority and usually purchase from advertisers who patronize this publication. Mr. H. E. Krueger made 18 sales as a result of a two inch ad in the Wisconsin Country Magazine last year.

The choosing of the medium is not the only important part of placing advertising. The selection of the months in which to advertise is perhaps just as important. January is a little too early although sometimes a few sales of seed grains are made during this month. February and March are really the best months. Sometimes it pays to advertise in April but usually the poorest results are obtained from an ad carried this late. Most of the farmers in Wisconsin have purchased what seed they will need before then.

It is really unnecessary to use a very large space in advertising seed grains. An inch advertisement will usually bring about as good results as a four inch ad. Probably the reason for this is that farmers are so much interested in purchasing seed grains during February and March that they study carefully every advertisement in the paper that advertises seeds whether it be large or small.

THE IMPORTANCE OF FARM ORGANIZATIONS.

M. WES. TUBBS.

Mr. President, Members of the Wisconsin Agricultural Experiment Association and Friends: I am grateful for the opportunity of meeting with your Association today, and certainly appreciate the honor of being placed on your program to open the discussion of so important a topic.

While my work and training will naturally lead me to emphasize the educational, the sociological, the commercial, the

civic and the economic phases of organization among farmers, almost to the exclusion of the productive, yet, I nevertheless, recognize the importance of scientific agricultural training, improvement of quality and increase of quantity growing out of careful selection and breeding, and also the great good accomplished by our Colleges of Agriculture, Experiment Stations and Associations. I am convinced, however, that you are much better schooled in production than in distribution, than in sociology or civics or economics. I am sure that some of these things have been sadly neglected, otherwise we should not have the frequent and ridiculous spectacle of a large crop yielding a smaller cash return than a normal or small crop. I believe the time has come when we should direct our attention, in part at least, "to making two smiles grow where only one grew before." In other words, to getting double pay for the two blades of grass or the two ears of corn that our education and experimentation is enabling us to produce. And with the better remuneration, more time can be taken for the social, the civic and the educational development of the farmer and his family. From this standpoint I hope you will pardon and also enjoy the turn we shall give to this discussion.

The topic assigned for this period: "The Importance of Farm Organizations" has claimed the careful thought and the exhaustive investigation and study of some of the greatest economists of the present generation. More especially is this true of European countries, which are far ahead of us in organization among farmers.

The Country Life Commission.

Quite recently, however, in this country growing out of a suggestion by that renowned Irish Organizer and Co-operator, Sir Horace Plunkett, to Mr. Roosevelt while President, the latter appointed on Aug. 10, 1908 the Country Life Commission consisting of

Prof. L. H. Bailey, of the New York Agricultural College,
Hon. Henry Wallace, Editor of Wallace's Farmer,
Prof. Kenyon L. Butterfield, of the Mass. Agric. College,
Mr. Walter H. Page, Editor of World's Work,
Hon. Gifford Pinchot—then Chief Forester,
Mr. C. S. Barrett, Pres. Farmers' Union, and

Mr. W. A. Beard, of Sacramento, Cal.

This Committee, in whole or in part, held hearings in thirty different places in twenty-five different states. They mailed over half a million circular letters with a blank containing the following twelve questions:

“1. Are the farm homes in your neighborhood as good as they should be under existing conditions?

2. Are the schools in your neighborhood training boys and girls satisfactorily for life on the farm?

3. Do the farmers in your neighborhood get the returns they reasonably should from the sale of their products?

4. Do the farmers in your neighborhood receive from the railroads, highroads, trolley lines, etc., the service they reasonably should have?

5. Do the farmers in your neighborhood receive from the United States postal service, rural telephones, etc., the service they reasonably should expect?

6. Are the farmers and their wives in your neighborhood satisfactorily organized to promote their mutual buying and selling interest?

7. Are the renters of farms in your neighborhood making a satisfactory living?

8. Is the supply of farm labor in your neighborhood satisfactory?

9. Are the conditions surrounding hired labor on the farms in your neighborhood satisfactory to the hired man?

10. Have the farmers in your neighborhood satisfactory facilities for doing their business in banking, credit, insurance, etc.?

11. Are the sanitary conditions of farms in your neighborhood satisfactory?

12. Do the farmers and their wives and families in your neighborhood get together for mutual improvement, entertainment, and social intercourse as much as they should?

What, in your judgment, is the most important single thing to be done for the general betterment of country life?”

Over one hundred thousand of the blanks were returned, the answers carefully tabulated, classified and compared with the facts learned at their various personal hearings. Based upon all of the information thus acquired the Country Life Commission prepared a complete report of over fifty pages, which was transmitted to President Roosevelt on January 23, 1909.

Accompanied by a Special Message from the President, the Report was transmitted to Congress on February 9th, 1909,

where it was, according to official records, "Read, ordered to lie on the table and be printed." It was printed as Senate Document No. 705 and *it is still lying on the table*, though probably no public document of recent years contained so much of real value to the farming community, nor for which there has been such an incessant demand,—always met, however, with the courteous circular of information, "Supply Exhausted."

After several months' effort I finally secured a copy from the opposite side of the continent, Spokane, Washington. The Board of Trade of that city considered the Report so valuable to the farmers of that state and being unable to procure any copies from Washington, D. C., they secured permission to reprint the Report, which they did at their own expense.

A Question:

Why is so valuable and so important a public document virtually suppressed by our government while uncounted and unread millions of semi-political speeches are published and mailed free into almost every home in the land?

The President, in his special message already referred to, summarized the results and work of the Commission in the following language:

"From all that has been done and learned three great, general and immediate needs of Country Life stand out:—

First, effective co-operation among farmers, to put them on a level with the organized interests with which they do business.

Second, a new kind of schools in the country, which shall teach the children as much outdoors as indoors and perhaps more, so that they will prepare for country life, and not as at present, mainly for life in town.

Third, better means of communication, including good roads and a parcel post, which the country people are everywhere, and rightly, unanimous in demanding."

It will be noticed that, "*the first, great general and immediate need*" recorded is "*effective co-operation among farmers to put them on a level with the organized interests with which they do business.*"

Effective co-operation without organization is impossible, hence organization is really of first importance.

Organization and Co-operation are so closely related to and dependent upon education that, in practice, a campaign of

education must precede successful results in either organization or co-operation.

We must educate to organize. Then the organization becomes a potent factor in extending and broadening the educational work until finally effective co-operative action is a natural sequence.

Economically considered the three words may be defined as follows:

EDUCATION: That continuous process of enlightenment that enables mankind to *know, do* and *enjoy* things not before comprehended.

ORGANIZATION: The assembling of individuals into a working force where the whole may operate as one in the accomplishment of a given purpose.

CO-OPERATION: The working together, as a unit, of many individuals under a well defined plan for a common purpose.

Organization and co-operation for educational purposes are necessary, for instance, in the collection and dissemination of information—the food for thought and further education—the basis of social, civic, economic and commercial co-operative action. One community can thus be informed of what other communities have done or are doing and profit by their experience and success.

Many things can be done quicker, easier, better and more economically collectively, through organized effort, than they can be done singly. In fact, it is a safe proposition to state that all social, educational, commercial, civic and economic progress is directly traceable to organization based upon education, in the sense of “knowing,” “doing” or “enjoying” “things not before comprehended” and to co-operation, in the sense of “working together for the common good.”

From the above academic review of the topic under discussion, “The Importance of Farm Organizations” we may safely submit the following specific reasons why farm organizations are important:

Because, Collective action—co-operation—is necessary to place farmers on a level with the organized interests with which they do business.

Because, Co-operation or collective action without organization is impossible.

Because, Organization is promotive of education.

Because, Civic, economic and commercial reforms and progress are dependent upon education, organization and co-operation.

Because, Organization promotes social progress, gives all members of the farmer's family direct contact with their neighbors and broadens their general view of life and industry.

Because, Industry and commerce are organized and individual farmers can not supply modern demands nor purchase their own supplies in sufficiently large quantities to realize possible economies.

Because, Organized industry "Big Business" can and does employ the best talent procurable to secure legislation in its favor. Individually and unorganized farmers can not afford to do this, nor even to effectively oppose discriminatory legislation. Organized and co-operating farmers can control legislation.

Because, Tilling the soil, raising fruit and live stock or producing dairy and poultry products is only one-half of farming—the other half is marketing them—merchandising—this is business and business men always organize.

Because, Farm products must be assembled, sorted, graded and put up in marketable shape and local facilities, warehouses or elevators, must be provided—the expense, maintenance and operation of these make organization and co-operation necessary.

Because, Those who have been doing the farmers' business have, too frequently, been "doing" the farmers also—not of choice, perhaps, but because of the uncertainty of price at terminal markets when they, in turn, shipped on the products bought. This necessitates too great a margin between farm price and market price.

Because, Organized and co-operating, with proper warehouse and storage facilities and with a system of credit, the farmers who produce the food and clothing for the world can control their marketing, make the year's supply go on the market gradually over a year's time—preventing gluts and corners, graft and speculation, congestion of traffic and senseless variation in farm-price.

Because, The stress of economic conditions in our large cities and many of the smaller ones makes it a struggle for existence. The "High Cost of Living" and the "Cost of High Living," the extortions of Trusts and Monopolies, the alarming uncertainty of employment, and the vast army of unemployed already begins to curtail consumption, weaken prices and foreshadow a serious financial disturbance, and unless the farmers, through organization, are able to maintain stability of profitable prices for their products, *force* business by making needed improvements, employing idle labor, buying supplies and machinery and thus emptying the warehouses of manufacturers thereby

starting anew the wheels of industry, conditions of 1873 and 1893 may be repeated in 1913.

Because, The condition foreseen by Abraham Lincoln shortly before his assassination when, in the agony of his soul, with the eye of prophecy, he exclaimed:—"As a result of the war, corporations have been enthroned and an era of corruption in high places will follow, and the money power of the country will endeavor to prolong its reign by working upon the prejudices of the people until all wealth is accumulated in few hands; and the republic is destroyed. I feel at this moment more anxiety for the safety of my country than ever before; even in the midst of the war." That time is now upon us. The statistical Abstract of the United States, twenty-ninth number, 1906, prepared under the direction of the Secretary of Commerce and Labor reveals the following startling facts:—

1st. That 51 multimillionaires own one thirty-fifth of the entire wealth of the nation, their names and wealth being given.

2d. That there were at that time approximately four thousand million and multimillionaires who owned approximately 87½% of the entire wealth of the nation.

3d. That the average property holdings of the remaining ninety odd million people was less than five hundred dollars each. (See page 900, Vol. 48 No. 24 Congressional Record, Jan. 11, 1912).

Because, Corporate capital now controls industry, hence labor. A score of "financiers," a few "clicks" over the wires and money is locked up, the wheels of industry are stopped and millions of workers are thrown out of employment—no wages, no food, no clothing, no shelter—the farmer's markets ruined, prices and values demoralized, mortgages foreclosed, robberies, murders and suicides—a *panic*. Such control has proven dangerous.

Because, Farmers are, as they have been so often told, the back-bone of the nation. Agriculture measures the prosperity and strength of any country. So important a factor, then, and so intimately associated with commerce, manufacture, finance, industry; in fact, with the very life, health and happiness of all other classes should be in a position to control industry and legislation, so as to protect and keep from starvation, suffering or want the millions of men, women and children of industry in the cities who are wholly dependent upon their wages from labor to provide themselves with food, clothing and shelter.

Because, Organized and co-operating, farmers can control industry, secure profitable prices for their own productions and insure equitable prices to consumers. They can control legislation and through it the people's money. They may be compelled to establish co-operative industry, manufactureries and means of wholesale and retail distribution, so as to insure for

labor employment and escape from the extortions of graft and speculation, but, organized.—farmers can do all these things and more, and no one can be really safe until the farmers are organized and do control the industry and wealth they create.

THE IMPROVEMENT OF FARM HOME CONVENIENCES

PROF. C. A. OCOCK,

MEMBER OF THE WIS. EXPERIMENT ASSOCIATION.

It is with pleasure that I take this opportunity to address the association, even but for a short time. I want to take for my central thought "The Improvement of Farm Home Conveniences" and to what it leads. The subject is a large one, too large even to handle in so short a time, and I shall therefore touch upon the most important features.

Why do so many living on farms wish to give up the best occupation on earth and move to the city? Why do farmers' wives become dissatisfied with the every day drudgery found in the farm home? Why do the young folks become restless and seek other occupations? The reason for all this, is, there is too little attention paid to the farm home requirement.

The farmer has for operating the farm all of the necessary farm machinery, but the housewife, as a rule, is denied those things which go to make the house easily cared for. Even the well in many cases is out near the barn, making it necessary to carry all the water used in the house. To illustrate, a certain New England farm-house up in the Berkshire Hills is three hundred feet from the well, while the barn door is but ten feet. Someone asked the farmer why he had not reversed the distance and his reply was: "Well there's five horses and ten or more cows to be watered in the barn, and only three humans to water at the house." That men are selfish and lazy has been shown many times through just such actions as this. A man will spend several hundred dollars on sulky plows, manure spreaders, grain and corn harvesters to aid in his labors and forget the house, not thinking a water system of some kind worth while.

I sometimes think that while the farmer is severely criticised for lack of attention to his home obligations, that maybe the wife is just a little at fault. Certainly this is true in

many instances. The wife objects to having a washing machine because grandmother and mother washed by hand, and besides machines wear out the clothes. Women won't listen to reason, but wish to work things out by main strength and awkwardness. Do you suppose some of them would use a gasoline or kerosene stove for cooking and baking in the hottest summer weather? Never, they prefer to swelter over a big range where the temperatures are at torrid heights for fear the smaller stoves might blow up. So it goes; sometimes it is one and sometimes another, and then you wonder why the young people don't stay at home.

Our city cousin lives in a home which is equipped with some of the necessities of life; modern heating systems, bathrooms and laundries with sewage and water connections. Should not these things appeal to the heart of the young and make them restless with country life? But with the farm home equipped in the same way there will be little, if any, reason for being dissatisfied.

The installation of such conveniences will cost no more than some of the farm machinery and surely it is as necessary. The health of the family is just as important as is the operation of the farm.

Where there is a water supply in a house, it is usually necessary to have some method of heating other than stoves. A good hot air furnace installed will cost two hundred dollars, steam heating system three hundred dollars, and hot water four hundred dollars for the average eight room house. The bathroom appointments may not be so expensive. The three fixtures—tub, lavatory and closet should not cost over one hundred and fifty dollars completely installed.

The water system may be one of three; gravity, air pressure, or air direct into the water pipe. The gravity system is the simplest but is more apt to freeze in cold weather. This system is much cheaper than either of the others, costing from twenty-five dollars and upward depending upon the size. The other systems are more expensive, costing from one hundred dollars up to several hundred: they have this advantage though, of giving more pressure to the water. One of the last two systems for an eight room house should not greatly exceed one hundred and fifty dollars all complete. These fig-



BEAUTIFUL FARM RESIDENCE, TAYLOR FARM, ROCK COUNTY.

This beautiful farm is owned and operated by Henry Taylor who by his thrift has made it one of the leading farms of the county. Pure bred seed grains and live stock are the specialties upon the place.



BARN AND OTHER OUTSIDE BUILDINGS ON THE TAYLOR FARM.

ures, of course, do not include the power for pumping the water.

It is safe to say that furnace, bathroom and water system could be installed for not more than five hundred dollars. A house with such appointments will require some method of sewage disposal, and may be either a cesspool or septic tank: the latter being more desirable. The cost is about the same under ordinary conditions, and may be installed by the farmer and some additional help at a cost not to exceed twenty-five or thirty dollars. If the whole was let by contract, it is quite probable that everything could be installed for five hundred dollars. The problem of lighting I have left out, not because it should not be considered but because it is not quite so important from my standpoint as those which have been considered.

If it seems desirable to install a lighting system, a good gasoline plant will cost approximately two hundred and fifty dollars: this includes a gas range in the kitchen thus doing away with the big cook stove for summer work.

The acetylene plant complete will cost not more than two hundred dollars.

A great many of these plants are in operation in farm homes all over this state and are giving excellent satisfaction, and there is no reason why there should not be many more.

The small electric light plant is fast coming into a higher state of perfection and many are being installed, but naturally cost a little more and are a little more difficult for the average person to care for than gasoline and acetylene.

It has been said that modern farm home conveniences were a luxury, but at the present time they are a necessity. They reduce the amount of fuel used as well as the labor connected with handling it. The comforts of the bathroom and general conveniences increase the pleasures of the home many fold, and the housewife finds that her work can be done with much less effort.

Serious consideration should be given this matter. It is one that should not be treated too lightly. The importance of having a comfortable and economical country home is just as great as it is to have the necessary farm machinery for performing the field and barn work.

Far too many families are being cheated out of these pleasures looking only to the making of money and paying for the farm, but a home with modern facilities will help pay for itself and the farm just as fast as will the modern farm machinery; and modern farm machinery has made it possible to farm on a paying basis.

Time will not permit me to discuss the many other problems which I should like, but if you will think on these things you can accomplish much. You can increase the earning capacity of the home workers, add cheerfulness and pleasure to your surroundings and at the same time you will provide those things which are so attractive to the wife and young folks, and which are alluring to them in the city.

Provide for the home, and the future by installing a few of the necessary conveniences and there will be no occasion to ask, why do the young folks leave the farm.

CO-OPERATION OF THE COUNTY ORDERS OF THE EXPERIMENT ASSOCIATION FOR THE BETTERMENT OF RURAL CONDITIONS.

BY W. E. LARSON STATE INSPECTOR OF RURAL SCHOOLS.

Inasmuch as there are many members of this association who are not members of county orders, I think it well to devote a portion of my time at least to the discussion of what may be done by the members, as individuals, for the betterment of rural conditions. In this work of improving country conditions, we may work individually and collectively.

In the discussion of this subject I shall consider it under four different topics, namely the four institutions, the home, the school, the church, and the state.

Let us first consider the home. Wherever there is a beautiful and happy home, there is an influence radiating from it which is felt by all who come in contact with it. We have heard something to-day of how the home may be arranged more conveniently. Let us consider how the home may be made more beautiful.

I know very well that the people on the farm are busy. Yet there are many things that can and ought to be done to make

it a place of beauty. A few trees and shrubs planted around the house will do much to make the place an attractive one. A few flower beds and a lawn add much to the beauty of the surroundings. There are villages in Wisconsin noted for their beauty. When we begin to look around for the cause, we usually find that a few of the citizens started by fixing up their yards and planting trees, vines, and shrubs. Others followed and in the course of a few years the whole village seemed to have gotten a higher ideal. A great deal of the teaching that we do in the world is by example. A home here and there in the country fixed up according to the best ideas will do much to raise the ideal for the whole neighborhood. The silent influence of a beautiful home is one of the strongest factors in rural betterment.

The second institution to which we will give our attention is the school. The country school should be an institution that is in keeping with country life and should do much to instill in the young minds ideals toward better conditions, I shall confine myself to a few practical things that the members of this association can do to improve our country schools.

In the first place, every member of this association ought to attend the annual school meeting which is held the first Monday in July. Get the best persons available on the school boards. There are on the boards in our state many individuals who do not take great interest in the schools. These ought to be retired, and good, live persons put in their places. This can only be done when the live people of the community will go to their school meeting and make things move. Besides electing the best officers available, the members ought also to try to get sufficient appropriations for the proper maintenance of the school. If the schoolhouse is in poor condition, improvements ought to be made on the building. If the equipment is insufficient, more ought to be provided.

The members of the association can do much to improve the country school by coöperating with the teachers and county superintendents. We have introduced agriculture as one of the subjects to be taught in the common school course. As we know, many teachers have very little practical knowledge of this subject. The members of the association could at times go to the school and give the children practical talks on such subjects as the selection of corn, the cultivation of the soil, etc.

One member of this association whom I know personally has done much by going before the teachers at their meetings and giving them exercises in the judging of corn, and in seed selection. If the members of the association will do all they possibly can in the teaching of agriculture, we shall have a great deal of life infused into the country schools of the state.

The county superintendent is the educational leader in the country schools. The members of the association can do much to make his work effective. In some counties the county order as an organization has helped the county superintendent in the management of corn contests. It is here where the county order as an organization can do the most effective work.

In many school districts of the state, meetings of various kinds are held during the year. These organizations are known as literary societies, farmers' clubs, parents' meetings, and the like. Whatever they may be called, the members of the association can do much by taking an active interest in their work. Some of the discussions ought to be of an agricultural nature. Topics of civic interest should also be taken up, as should questions pertaining to the welfare of the homes. We cannot overestimate the influence these meetings have upon spreading intelligence and in making the life in the country more pleasant and agreeable. Let the members of the association, therefore, do all that they possibly can to help along this movement and make the country school more of a social and civic center.

We have in the state of Wisconsin what are known as school board conventions. These have done much towards enlightening the people concerning the best ways of managing the schools of the state. Whether the members of the association are school officers or not, they can do much good by attending these conventions. Briefly speaking, the members of the association should in every possible way identify themselves with the school work of the community in which they live, whether that work involves merely the running of an ordinary country school or whether it includes schools of a higher grade.

Regarding the church as an institution for the betterment of rural conditions, I will merely say there is a great opportunity for the young men of the state to do effective service

in connection with this institution. The church is what the people make it. If the church is made up of live members, it will do much towards making country life what it should be. I would therefore urge the members of the organization in every possible way to make this institution an agency for the upbuilding of the highest ideals possible.

The last institution I make mention of is the state. We are all citizens and therefore should take a live interest in the affairs of government. This means that the members of the association should participate in all town and county affairs and be present at all meetings where the public welfare is discussed in any way. We must not expect our government to be ideal if we neglect the little things. It is not enough to go to elections when some high officer is to be elected, such as the president or governor. It is just as important that we attend the town meeting in spring and put in as our town officers the most capable, energetic, and enthusiastic individuals of the community. If every community of the state had an ideal local management, the chances are that the state itself would be pretty well governed, but if we neglect our local affairs, it is out of the question to expect the ideal management of the larger affairs of state. The members of the association should therefore do all they possibly can to make the local government as efficient as possible, as well as to take an interest in the larger affairs of the state as a whole.

In conclusion I wish to emphasize the fact that it is largely the little things that need to be looked after. If we work individually and collectively to do all we can to make these little things perfect, we shall do a great deal towards making the whole state better. An ideal state is one in which all the different classes work harmoniously. Many people in the state belong to the rural class. The happiness of everybody, therefore, is largely affected by the welfare and happiness of those who live in the country communities. The improvement of the country communities depends largely upon the efforts made by the people who live in these communities. The members of this association are all active workers in the rural communities. You have an opportunity as few have to better the condition of the state. Let your example be such that it will be an inspiration to all who know you.

WHEAT BREEDING.—THE VALUE OF THE INDIVIDUAL.

F. H. DEMAREE, AGRONOMIST J. I. CASE PLOW WORKS, RACINE.

When, considering the subject of plant breeding, all farm crops may be divided into two classes in reference to the manner they are pollinated. Some crops are inbred and some crossbred. The inbred ones furnish us examples of the closest kind of breeding. The pollen or male element of the flower falls directly upon the stigma or female portion of the same flower. In other words, it fertilizes itself. Crossbred crops are entirely different, in that they are so formed that the pollen from one plant is naturally transferred to the stigma of another plant. This transference may be done by the wind or various insects.

Of inbred crops wheat, oats and barley are our most commonly known field crops, while corn and rye are the best known examples of the crossbred grains.

With these fundamentals in mind let us return to the subject of this discussion—wheat. Before going further, it should be said that of all crops with which the speaker has had to do, wheat responds most readily to good seed selection, breeding, good soil preparation and fertilization. Wisconsin was once a great wheat state, but that glory has long since departed. But there is little reason why she should not return again to the ranks of our best wheat producing states.

In breeding wheat the main objects which must be kept in mind are (1) yield, (2) quality, (3) stiffness of straw, (4) disease resistance and (5) hardiness. The question now naturally arises as to how these objects may be attained when the breeder is dealing with so small a seed as wheat and so many individuals.

The individual plant, produced from one seed is the basis of procedure. Since it is inbred, you can be sure that each head and each grain produced by that plant carries down with it all the heredity found back in the original kernel. So, if plants can be found which have any much desired characters, their propagation should insure the perpetuation of those characters.

The question is, do individual plants of wheat of a given variety vary, one from another? Will one plant produce a high yielding strain and another a low yielding strain? Will one plant produce a winter resisting strain and another a poor resisting strain? All of these questions for all imaginable characters must be settled before we can plan out a system of breeding that will get results.

At this point it is essential to note that it has been absolutely proved that individual plants of an inbred race do breed true to the characters expressed in them. Prof. Hjalmar Nilsson of the Svälof station in Sweden should be given credit for this proof. About twenty years ago he took up this work, but conducted his breeding operations along old German lines of mass selection. That is, by selecting a number of good plants, mixing the seed and planting them. He soon saw that his product was very ununiform. So one year he selected several hundred individual heads of wheat and oats and planted the grain from each head in a little row by itself. The next season he was greatly surprised to find practically every row exactly like the original head selected.

In most of our so-called pure varieties of wheat there are almost countless numbers of various types. Some are distinct, while others vary but little. These types can be selected, tested side by side and then propagated in commercial quantities. A strain so treated is called "pedigreed."

We are unable to account satisfactorily for the appearance of these elemental types. Nilsson considered them elemental in the real sense of the word—that they are always to be found in any variety having a mixed origin. The old method of fixing a new variety was to select a number of the best individuals which seemed to be alike and mix the seed. They may have been alike, but probably were not. In some cases the first plant may have been an accidental cross and, of course, produced many individuals in the course of time much unlike itself.

At all events the knowledge that individual plants of a given kind and variety of grain do vary considerably has given rise to our present system of breeding. Large numbers of plants are carefully studied from all standpoints, then comparatively few chosen for test purposes. The seed of each plant is saved by itself and planted in a single row. The

test of the plant comes in its yielding power, hardiness, disease resistance, etc., of which it is capable. This system of planting and testing is known as the Centgener System and is the one practiced at practically all of our Experiment Stations.

You are, of course, interested in knowing what you can do on your own farms. Can you do more than simply grow the grain put out to you and keep it pure? It may be of interest and perhaps surprising to know that most of our many varieties of grain have been produced by farmers. They have made crosses of corn and by persistent effort set one of the resulting types with great accuracy. They have noted strange heads of wheat, oats and barley in their fields and gathered enough for a start, thus bringing out a new variety.

Every grower of grain can watch his fields, looking for the exceptional individual plant—one which is taller, stronger, free from rust or smut, or especially productive. Such plants when propagated almost invariably breed true if they come from a naturally inbred race. Nature has produced for us in her abundance all the types that we need to suit our varying conditions of soil and climate. It is our part to find them.

THE GROWING OF PEAS IN NORTHERN WISCONSIN.

PROF. E. J. DELWICHE, ASHLAND.

Wisconsin has long been known as a leading state in the production of peas, both for canning purposes and for dry peas. The combination of soil and climate in many sections of the state is such as to favor the growing of this valuable crop. Owing to faulty systems of agriculture it is doubtless true that the pea growing industry is not nearly as flourishing in the older sections where peas have been growing for many years, as was true in past years. The pea crop has been such a profitable one that growers have not deemed it necessary to pay proper attention to the matter of crop rotation. This has led to disastrous results in many instances. Weeds particularly the Canada thistle, have become more and more numerous until many sections which formerly were quite free from this troublesome weed are now badly infested. In many

sections insects, such as the pea weevil and the pea louse, have also multiplied to a great extent from the same cause. There is no question but what the different fungus diseases which of late years have been so destructive in many localities, have also been promoted by the unscientific methods of agriculture in vogue in many of the districts where peas are the main crop. That growers will have to adopt radical changes in their systems of crop rotation seems evident. These troubles are not present in Northern Wisconsin, since the crop has not been extensively grown until lately. It is hoped that in the newer areas where peas are being introduced, farmers will profit from the experience of the older regions and start out by growing their peas in rotation with other crops rather than to follow continuous cropping of peas as has been practiced in many of the older localities where peas are grown commercially.

The development of commercial pea growing in Northern Wisconsin has taken place in very recent years. It is true that peas have been grown in every county as feed for stock for a number of years, but not until very recently has the crop been grown to any extent in the newer counties of the northern half of the state. Already pea canning factories have been established in several of the northern counties. Pea canning factories are located at Barron, Rice Lake and Chetek, and other places in Barron county. There are also factories in Polk, Langlade, Marinette and other counties. It may be said, however, that the industry has not been developed to any great extent as yet, if we consider the northern half of the state as a whole. There is a good deal of land which is adapted to growing this crop which has not yet been opened up and which is destined some day to grow peas very profitably. Returns from the pea canneries in favorable seasons have been very good. In 1909 peas ranged from twenty to one hundred dollars per acre above the cost of seed in some of the localities visited by the writer. The Lake Superior region today offers probably the most favorable condition for the growing of field and canning peas, amongst the undeveloped sections of the state. Climatic and soil conditions in this region are particularly well adapted to the pea crop. There is a great belt of heavy red clay soil extending for a distance of from eight to twenty miles south of Lake Superior, which

when proper attention to drainage is given, grows the best kind of peas. It should be noted that the region in question has many things in common with the famous Door county peninsula, where peas have been grown very extensively for the last twenty years or more. The cool climate and red clay soil seem to favor the growing of this crop. Realizing the possibilities along this line the Experiment Station has been giving a good deal of attention to the development of the pea industry. Variety tests were carried on at Ashland and Superior and lately in Rusk and Clark counties, with a view to finding varieties which are best suited to the region. The results at Ashland have been very satisfactory. Experiments have shown that the high class soup peas, such as the Green and the Scotch varieties, can be grown very profitably and very good yields per acre have been obtained. It is worthy of notice that during the past season yields averaging from thirty-five bushels per acre were obtained. This in spite of the fact that the weather conditions were not as favorable to the pea crop as they might have been. In fact the very high price now asked for the varieties mentioned bears testimony to the fact that there has been a shortage in the other regions where peas are grown. One of the drawbacks of the pea industry is lack of purity of stock. Extensive breeding experiments are now in progress at the Ashland substation with a view to finding superior pure bred strains of the different standard varieties of peas now grown. The results have been very gratifying. Some strains of the Green and Scotch varieties gave yields much higher than the original stock. A strain of the Green variety last year yielded over fifty bushels per acre and an improved Scotch strain gave a yield of forty-five bushels. These yields were obtained under field conditions, without any fertilization or extraordinary attempt to obtain large yields. These strains are now being increased as fast as possible and it is hoped that within a very few years, dissemination may be started. Over four hundred selections from several standard varieties were grown at the Ashland Station during the last year. The performance records of these different strains are kept, together with their relative immunity from the attacks of insect pests and fungus diseases. There is little doubt but what it will be possible to provide much higher yielding strains of the differ-

ent varieties in comparison with the original stock. In addition to the straight selective work, crossing has also been resorted to and interesting results have been obtained. It is too early to predict as to the possible economic value of this line of work. It seems very probable, however, from the results thus far obtained, that new varieties possessing desirable characteristics will be produced.

In conclusion we wish to emphasize the fact that there is a good opportunity for the growing of the higher priced varieties of peas in the North—the canning and field varieties doing equally well. There is no doubt but what the pea crop is destined to find a prominent place in the development of the agriculture of Northern Wisconsin.

THE FARMER AS A MAN OF BUSINESS AFFAIRS.

W. L. AMES, TREAS. FARMERS NATIONAL CONGRESS.

When Prof. Moore asked me to discuss this subject briefly with you at this your 1912 session, he inserted certain qualifications that caused me to hesitate to accept the duty. Principal among these qualifications, he urged that I emphasize the propriety of essentially abandoning old slipshod ways and attaching to newer forms, and to more fully ascertain by bookkeeping methods, those lines that were paying, and to abandon those methods and ways that did not *seem* to be paying.

At once there came to my mind certain young farmers of to-day taking their pyrotechnic flights, (if flying at all) from the *top* round of the ladder which it had taken their fathers a lifetime to build, and ingloriously landing, if landing at all, in Goshwalikan Avenue. Not content with following the possibly slow trend of the fathers slow but reasonably sure labors, they seemingly can't move a wheel until they have installed every new, and possibly untried device for labor and time saving, and about the time they think they are ready for a certain line of work, change their minds and conclude that that is not, after all, the line of farming that they are adapted to, and then proceed to entirely overhaul their plans to conform to some other line of farming.

Feeling that it would be inconsistent for me to follow just his outlining, I decided not to accept the duty until I should have a personal interview with Mr. Moore, which I had, and resulting with the proposition from him to take the subject and treat from my own standpoint.

QUALIFICATIONS.

There is indeed a no small amount to be considered in this subject. A man, to succeed in any business, must be more or less, a man of business affairs. Among other important characteristics, he must, as the term goes, "Be a Good Mixer." There is nothing that better prepares a man of to-day for successful business than to mingle freely with his fellow men, take free action with them, study their ways, appropriate their good and pleasing ways, abstain from their obnoxious ways and habits, think out and cultivate good, wholesome and progressive ideas, struggle and aim to be just a little in advance of the average mind if possible, and in all things that he undertakes, or that is for the common good, be sure that he keeps his end of the evenner up.

THE HALF-BUSHEL FARMER.

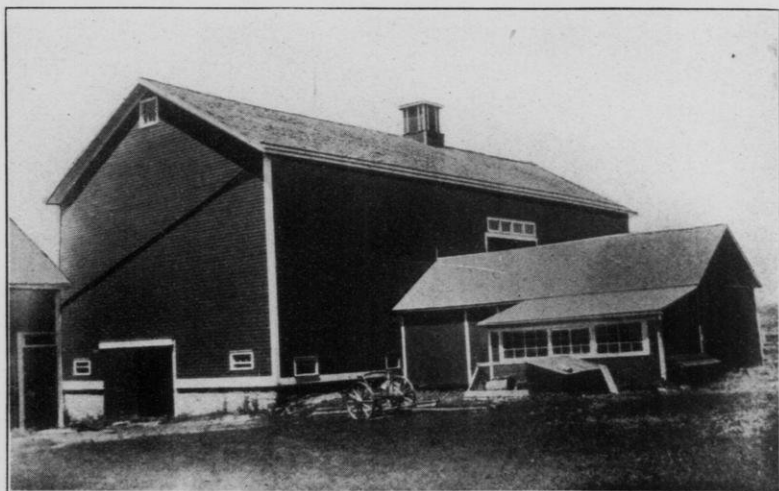
We ever have with us in abundance the half-bushel farmer, who with his two or three cows, a couple of pigs and a few chickens, is so absorbed in his own business that he has not time to think of anything else, or give an hour's attention to anything outside of his own little home realm of business. This class, large as it is, and good and inoffensive as are the individuals composing it, need never be expected to move matters of general interest and affairs very much. To move matters in which a public as well as the individual is interested, calls for a mind of broader vision and capable of grasping a situation and acting upon it just at a time when it is ripe for action. Opportunities come to all for favorable action. Utilized, they broaden the individual and rubably benefit the public. Unused and lost, the mind soon ceases to be able to perceive them when they do come, and ultimately concludes that opportunities do not come to him.



"FAIR VIEW" FARM RESIDENCE.

Home of W. L. Ames.

The Fair View farm is pleasantly located within a mile of Oregon, Wis. This beautiful farm is managed and operated by our worthy friend W. L. Ames who has made it one of the most pleasant and productive farms in the state. Mr. Ames has always taken a deep interest in agricultural affairs and is now treasurer of the Farmers National Congress. He has always manifested a deep interest in the work of the Experiment Association and through his kind counsel and activity at meetings has assisted materially in the welfare of the organization. Mr. Ames is an honorary member of the Experiment Association and has always labored earnestly for its general welfare.



SOME OF THE FAIR VIEW FARM BUILDINGS.

JUST A WISCONSIN FARMER.

To be "Just a Wisconsin Farmer" is ceasing to be an idle phrase. It is growing to mean much. It means World Championships in grain and seed grain growing and qualities. And still more when, in a world contest, Wisconsin not only gets within the coveted circle of some ten prizes, but challenges World admiration by complacently walking away with 1st, 2nd and 3d prizes in a world grain contest. Again I repeat, *It means something.* And it means, among other things, that there are among us those fulfilling the wording of my text, or "Farmers as Men of Business Affairs."

WISCONSIN'S POSITION.

Wisconsin's position is certainly becoming unique. Accredited among her sister states with conservatism, or rather conservative radicalism, yet she is an acknowledged leader in progressiveness, and as I mingle with public assemblages away from home, no state is so frequently and creditably referred to as Wisconsin. And in these references, the University and the College of Agriculture are not the least, nor the least favorable, of the references. Public Institution that it is and one in which we all feel a great pride, we personally hope that "The Junior Prom," in which wealth alone can be considered and the poorer student not even allowed to get a glimpse of the interior; the Stadium, and the Athletic Field, may not become too conspicuous factors in the otherwise great institution.

OLD AND NEWER WAYS.

But to return more directly to my subject and to follow briefly the cue intimated by Mr. Moore. "Abandoning Old Slipshod Ways." Yes, slipshod ways in particular, as slipshod ways are seldom leaders to success. But I am hardly prepared to champion the abandoning of all old ways until we are practically certain that we have surer and better new ways to success. The good old ways are the ways that have built the hundreds of substantial and creditable farm homes with which this country abounds.

Good or bad ways proven by bookkeeping. Bookkeeping will seldom prove beyond doubt, ways, good or bad. One of the greatest disappointments that I have found in farming, and I am not alone in this discovery, is, that we pursue a certain course in farming for several years and succeed and then we say, "There, there's one thing that we know how to do," and the very next time we try it we fail, and then we don't know as much as we thought we did. In fact there are few things that we do know. But there is no backing up: We must proceed on a line of general principles and with faith that if we do our best, reasonable reward will be ours, and the world will be fed, for such is our high mission.

THE FARM BRED AND THE COLLEGE BRED FARMER.

In the term "Farmer" as used in this subject, reference is made specifically to the actual and practical operator of a farm. Presumably a farm bred farmer. I would not know how to handle, nor what to say of a city or college bred farmer. I assume that the great majority of you young men, and perhaps all, are farm bred farmers. If so you know as well as I the real and practical value of the assuming farmer who is but a college bred farmer. Knowing but very little of the real business of farming. For farming is a real business and if ever a business teemed with surprises and disappointments, farming does. Which leads us to the subject of

DELUSIONS.

Young men, I'm going to say just a word to you personally whether strictly relevant to my subject or not, and it's along this line of delusions. It's a slightly sensitive subject and perhaps not one of you will agree with me, but that never causes me to hesitate to say what I think. It's about weddings. Perhaps you have all experienced your first wedding. If so you doubtless remember how beautiful that girl looked that, to you, eventful day. And unless you had made her close kitchen and work-a-day acquaintance you doubtless thought to yourself, "Is it possible that I am to spend the remainder of my days with so beautiful a creature as that?" But if you had to work for a living, it was not very long before you had to

behold your bride in a plainer attire, when she would not look so exquisitely beautiful and lovely, but you were then wed and destined to live together a lifetime. The delusion was as great to her. She beheld you in your conventional black: Doubtless with white tie, shiny shoes and a derby hat and gloved hands, and a face shaved so smooth that a fly would slip up on it and perhaps a grand moustache, and perhaps on that particular day you had, for exhibition purposes, stuffed your purse with one-dollar bills to make it look liberal and resourceful. But Oh my! Again I say, if you had to work for a living, and get to work soon after she took you "For better or for worse", and she had to behold you in your work clothes and coarse shoes and with a growth of beard stubble on your once feminine cheeks, and she had discovered that wad of money on your wedding day was only one-dollar bills, don't you almost wonder that she did not at once pick up and leave you? My proposed remedy would be. Simply tone down that wedding day delusion. Appear to be more nearly what you really are on that day of days, your wedding day, and the day of all days that has such a marked influence on your after years, and my prayer is that the influence may be only for good.

I am reliably informed that a similar delusion exists in cities relative to farming. That many a city man, workman perhaps, labors and lives under the impression that a farmer simply walks and struts around most of the time with his hands in his pockets and that there is at all times an abundance of coins there with which to make a very perceptible jingle. That at times of high prices his bins are heaped high with the where-withall to sell. That with butter at prospectively 60 cents a pound, his sleek cows at the end of a 20° below January are just more than filling pails and cans with 5% milk. That because they are paying 18 to 25 cents for meat over the block, that the farmer must be getting one half to three-fourths of that price for his live animals. That because there is a 10-cent-a-pound tax on colored oleomargarine that it must make that commodity that much higher to them, and they pray fervently that that tax be removed, so that manufacturers of oleomargarine can color it to imitate real butter and then charge them 40 to 60 cents a pound for it, the same as butter price. Whereas there is but $\frac{1}{4}$ cent a pound tax on uncolored oleomargarine, which sells at 15 to 18 cents per pound and the col-

oring pill thrown in so that the consumer can color it himself. Oh, we sincerely hope that when the consumer succeeds in getting that 10 cent tax removed and he is paying regular butter price for oleomargarine, and the manufacturer of oleomargarine is thereby simply doubling his profits, we sincerely hope the consumer will be satisfied. It takes a farmer of only "Half Business Affairs" to comprehend this. And again I have been told directly by the city laborer that he had been led to believe that at all times there sat on the farm kitchen sideboard an inexhaustible egg basket, ever ready for the farmer to just slip his arm through the handle as he started for market, and with which, at perhaps 30 to 40 cents a dozen, to pay for his ample supply of groceries for the week to come, but whether at 30 or 10 cents a dozen, the inexhaustible egg basket is always there and full.

CONCLUSION, THEN, AS TO "DELUSIONS."

After a lifetime of observation, I believe I am prepared to unreservedly testify as a "Farmer of Business Affairs" that matrimony is a blessed relation, and the relation intended by our Creator, but that it would bring fewer disappointments if shorn of some of the tinsel, draperies, gaudy attires and elaborate wedding dinners of the wedding day. And as to delusions relative to farming: I need not comment of them to the young man before me who has been brought up on the farm, but to the possible young man before me who is but a college bred farmer, let me warn him not to be too seriously influenced by the prevailing city idea of what the real farmer and his life is.

SURPRISES AND DISAPPOINTMENTS.

If ever there was a business that teems with surprises and disappointments it is Farming. The man never was more mistaken in his life when he thinks or concludes that farming can be reduced to a bookkeeping science and industry. That by last years results he can safely figure out the results of the coming year. He had best not spend too much of his anticipated earnings on this basis before he has them in hand.

As I have before remarked: We follow a certain line of labor for a few years and succeed, and then conclude that we

have finally clinched a point on that crop, and the next year we fail, thus revealing to us that there is scarcely such a thing as "Clinch" in farm methods.

Again we become discouraged and absolutely abandon the old farm orchard, as unworthy of our further care and attention. We give it up. It becomes sod-bound, untrimmed and, neglected and almost forgotten, when under these handicapped conditions, it shows up the next year with the most bountiful crop of the most perfect fruit in the existence of the orchard. So while it is not well nor worthy of us to base our future labors and plans on "Slip-shod" methods don't let us absolutely lie down because we have not every equipment that we would like. The farmer worthy of the title "A man of business affairs will find many an avenue to success other than through the one avenue of technical high class equipment. The methods I once applied to the raising of a certain bumper crop, while conforming well to nature conditions, seemed so obnoxious to my more sensitive neighbors, and considered by them so slip-shod that they confessed to me later that they had been praying all summer that I would not get my seed back, but they were still magnanimous enough to acknowledge the accidental success of the incident and the methods then and there employed have since become the regularly applied methods in the neighborhood in the production of that crop. The owner of a piece of very ordinary farm land right near our home in crossing his field one day picked up a very small glistening pebble. He half jokingly announced that he had found a diamond. It became a neighborhood joke. But a final scientific examination proved it to be a genuine diamond.

Farther than to steer us in an averagly satisfactory course, technical bookkeeping in farming will not prove a panacea for numerous ills. The man in debt knows reasonably well at the end of the year whether he has kept his interest paid and possibly some principal. The man out of debt knows equally well about how much he has laid out in permanent improvements, and about how much his bank accounts of the past year exceeds accounts of the previous year. To what extent the new Income Tax law will necessitate the keeping of more technical farm book accounts remains yet to be seen. It may not be amiss to begin a mild practice of the habit. I would not be

understood as disfavoring farm bookkeeping. I have practiced it since the beginning of my business years, and would not think of abandoning it, if for no other reason than, having been taught from infancy that we must live within our income, my simple system of farm bookkeeping at least steers me in this direction.

CHARACTERISTICS OF THE FARMER AS A MAN OF BUSINESS AFFAIRS.

Among the characteristics of my ideal "Farmer as a Man of Business Affairs", I would mention nothing but what I believe to be perfectly attainable by the ordinary farmer if he will but put forth the best efforts within his ordinary powers. He cannot sleep away his hours. He must be wide awake in daylight hours; He must think as he works; He must put good thoughts into action; He must be progressive; He must be capable of expansion; He must think some of the time of someone besides himself. He must pull occasionally on the other fellows tug; He must recognize the fact that there is a public side to agriculture that will not take care of itself, and that it devolves on him in a measure to assist at least in that supervision and that, too, without consideration of the salary that may or may not be in it. Don't think too much about the salary; the other fellow will look after that. Remember that it is only what you do for others that will live after you when you are gone. Not the big salary that you won. Look rather with pity on the man who stands in his own dooryard and gazes as you open the snowbound road by his place. He is really so small that he will sometime drop out of sight and no one will know that he is gone.

The ideal "Farmer of Business Affairs," has learned well by years of forethought, to be reasonably prepared for the inevitable disappointments coincident to farming, and to reasonably prepare himself for them. In other words, forethought is almost equal to forewarned. Again this ideal "Farmer of Business Affairs" will find ample to busy his mind and energies with other than smoking. This same Business Farmer may have to become accustomed to injustices but will never become reconciled to them and will be ever on the alert to deal them a knock-out blow or to assist in it, should the least opportunity present, and we believe that for real injus-

tices, opportunities for correction will present, if we are only perceptive enough to recognize them.

Aren't we ashamed of ourselves to permit the perpetuation of even a hint that political office buying is permitted in our midst? Are we dead sure that the much lauded Primary has eliminated the chronic office seeker in our midst? Are we reasonably certain that the heart will of a people is being considered in the construction of rural \$3000.00-a-mile highways, when it is stated in legislative committees, and not refuted that not 5% of the clamor for better rural roads comes from the rural communities. Then where does it come from? Answer. From Automobilists.

The Business Farmer of today must be constructive. He must know his real needs and then go after them. No other class will bring them to him. Other classes are only too busy looking after their own needs. Neither must he depend on someone else of his own class to do the work. Oh! there are so many who are just hoping that someone will do something to relieve the situation or bring about the better conditions with no apparent thought that they have any duty in the matter. In fact they have become so dependent on someone else doing the philanthropic work for them that they have lost all self-dependence, and have become simply and absolutely passengers for some one else to pull.

If we would have a Parcel Post in this country adequate to its needs, and equal to other countries to which we would blush to consider ourselves second: A Parcel Post, (not that discriminates against the citizen of this country, and in favor of the Italian and Hungarian and other alien in our midst, and again shame on us), that would assist to transport the innumerable small packages of merchandise continually enroute in our midst, with the facilities practically all installed and not half utilized, it remains for us to go after it with all the energy of which we are possessed. The opposing powers now in force are looking well to their defenses but they apparently realize that their citadel is about to fall and are seeking the easiest way to let it down as easily as possible, even to trying to sell out to the government, as though to eliminate the extortion, the government had to buy them out.

In not only this but in many things must the Business Farmer be constructive. To know a good thing when he sees

it and to pursue it; and if it be quite a young farmer and possibly single, if it perchance be a good worthy young girl that he pursues, yield to no obstacles until she is yours.

The "Farmer of Business Affairs" of to-day must not only be constructive, but he must also be inventive of new ways, which while benefiting himself, will also benefit others.

In this line practical coöperation must play an important part. One of the apparently most successful illustrations of practical and profitable coöperation that I have ever observed is the "Independent Harvester Company" of Plano, Ill. It had its inception simply in the grasping of an opportunity by "Farmers of Business Affairs." Its site is financially historic. A portion only of its present housing, having in the past housed the entire former "Deering," and later "Plano" harvester plants, that at an opportune time sold out and merged into the "International Harvester Trust" at many millions of dollars. If these plants had succeeded, why not a third plant under good management, of which there is every evidence in the "Independent" plant. Also securing to the patrons and stockholders first-class machinery at reduced cost, and also affording safe investment for surplus farmer capital.

Coöperative elevators and possible stores and markets serve the same purpose. We can scarcely leave this subject without at least touching upon

THE HIGH COST OF LIVING.

As the farmer, of all men, lives near the productive end of what we term the elements of living, the observing and business farmer cannot but have a fair idea of why some articles are high. To begin with, as a people, the speed with which we are living in some lines, has accelerated to such an extent that we have entirely lost our reckoning and foundation. Little but the best of steaks is called for at the meat market. The horse drawn pleasure vehicle is being superseded in many instances by the automobile, not only costly in original price but costly to operate and maintain, and at best can be used only a portion of the year. We must have elaborate buildings and offices for our public servants to labor seven hours a day in, while the farmer feeds his pigs and stock, and milks

and cleans stables for fourteen hours a day under such circumstances and conditions, be they good or bad, as he can afford or improvise. But last and most emphatic of all the consuming public stands aghast at the pinnacle price at which butter stands today. But do they think that the principle of the old adage "Can't keep your cake and eat it too," has ceased to be effective and become obliterated? Did they think last June and July and August, when surplus butter should have been going into cold storage for winter use, but when they were nibbling up the entire cream out-put of innumerable country creameries in ice cream, a habit that has increased by leaps and bounds in the past year or two, did they think they would yet have that same cream in the shape of butter to draw on indefinitely in the following winter months? If so they are finding to their sorrow that they cannot live on ice cream all summer without feeling the pinching effects of it in the dairy product at some other time of the year. The dairy interests of this country are extensive but not inexhaustible. They will not stand up under all kinds of abuse, and subject to every call, especially in a 20 degree-below-zero-January. This is evident at least to the "Business Farmer."

Right in this connection we would add that we believe the possible goal of lower-cost living will not have been reached or nearly reached until the appetite of the consumer shall have become sufficiently toned down and modified so that an ordinary fresh-meat roast or its equivalent can be worried down without the accelerating aid of a Yorkshire pudding, the essential element of which, in winter, is 40 cent eggs. And again, not until the producer and consumer cut cross corners and came closer together in the transmission of the necessities of life between the two. Here again is one of the opportunities of "The Farmer as a Man of Business Affairs" to make his best attempt to bridge a heretofore difficult-of-passage chasm, and in the bridging of which he will have rendered valuable service to humanity.

A year ago, as the 1st of March approached, I suddenly found myself in need of a married man for farm work. I thought and concluded hastily. I advertised my detailed needs in a Madison daily paper. In less than forty-eight hours I had sixteen responses to my ad, the majority of

whom could present good references. I accepted the first one who personally presented himself and I have not been disappointed and we are arranging to continue together. Deductions. Prepare more good small farm tenement homes, employ more married help, and we will have, in the main, better farm help. 2nd, The majority of the sixteen who responded to my ad, had been reared on the farm, were experienced in farm work, had gone to the city to better themselves, had had an all-sufficiency of the attempt at betterment, and were now ready and eager to return to the soil and the farm. Inquire for help where it exists in excess. I have occupied more than my share of time. I must draw

CONCLUSIONS.

There will and must be unrest until fairness and justice prevail.

We will never consent to selling in an open, and buying in a protected market. Such is the sentiment of "The Business-Affairs" farmer.

One thing is certain. We must go forward, and if we are possessed of sufficient resource we shall attain to our desired haven, and fill the mission of "A Farmer of Business Affairs." If we are without that necessary equipment we shall go down before the inevitable storm.

A building thoroughly wired and equipped for a flood of light, but yet in total darkness. An abundance of light-giving current just outside, and all that is lacking is CONNECTION. Will YOU make it one of your life efforts to form that important function of "CONNECTION?"

THE VALUE OF RYE AS A FARM CROP.

B. D. LEITH, MADISON.

Up to the middle of the 19th Century, good estimates indicate that rye formed the chief sustenance of at least one-third of the population of Europe. Even today we find Russia, Germany, Austria-Hungary and France raising large quantities of it, and a very large part of the crop produced is consumed by people within their borders. The United

States stands fifth in rye production, but Germany raises more than ten times as much rye as we do.

The states in the United States which raised the most rye according to the 1911 reports are: Wisconsin first with over 6,000,000 bushels and Michigan second with 5,840,000 bushels. Minnesota falls shortly behind as third state. In 1909 and 1910 Michigan raised considerably more rye than Wisconsin, but in 1911 Michigan fell somewhat behind her yield of former years and Wisconsin stepped far ahead of her former production.

Eight different varieties have been tested at this station, six of winter and two of spring. The winter rye has proven to be much better adapted to the soils of Wisconsin where rye forms an important crop and also a better yielder with better quality of grain. The winter rye yields from five to fifteen bushels per acre more than the spring rye.

Four pedigreed strains have been established, all winter varieties:

Ped. No. 1. Petkus,

Ped. No. 2. Schlausted,

Ped. No. 3. Ivanoff,

Ped. No. 4. Minn. No. I.

The greatest value of rye as a Wisconsin crop is its adaptability to a system of farm management of the poorer soils, rather than a flour plant. Its extreme hardiness is its strong characteristic. It will give a fair crop on soils where other cereals would be failures. It does not follow that rye will do best on poor soils. It will give far greater returns on fertile soils than on poor soils, but because of the fact that rye will survive on soils where other crops will fail, it has become the crop associated with the lighter, poorer soils.

It is naturally a plant suited to cold climates. It will mature in Alaska. But hot weather does not seem to injure it to any extent.

The straw is more slender and grows taller than wheat. The heads are longer and almost square. Owing to the weight of the grain in the head, it nods very decidedly, and often the entire plant will lean. But owing to the extreme rigidity of the straw, there is not the tendency to crinkle down and lodge that there is in wheat. The flowers are more open than in other grains and there is considerable cross fer-

tilization. Owing to this fact, there is much mixture found in rye varieties and there are fewer marked characteristics of berry and plant than there is in wheat. The glumes are narrower than those of wheat and consequently the grain protrudes somewhat and it shells readily. The chaff does not come off from the spike when threshed. The beards are somewhat shorter, not so spreading and much more flexible than in wheat.

Rye sends out four vigorous temporary roots early, when sprouting while wheat sends out only three. The young shoots are reddish when they first appear above ground. It starts to shoot much earlier in the spring than winter wheat does and ripens about a week earlier. The fall growth of leaves is heavy and very decumbent, more so than wheat. In spring after shooting has taken place the leaf growth is less than on other grains. It is troubled very little by insects and diseases. Owing to its early development, it is too near maturity for the diseases and insects to do much harm when they appear. It is often infested with ergot, but usually not enough to be a serious detriment to its culture.

Knowing the characteristics of the plant and its habits of growth, its value as a farm crop becomes more readily apparent. It is sown in the fall early enough so that it gets a good growth by the time winter sets in, but not growth enough so that winter freezing will kill it. In this way it gets the advantage of the fall rains and the early rains of spring. There is a considerable amount of plant food leached out by these late fall and early spring rains—principally the nitrates. On poor soils where plant food is scarce this saving is a very desirable quality in a plant.

In fact rye is one of the great conservers of our natural resources in this respect. The four vigorous roots which it sends out while germinating gives it a decided advantage over other grains in getting a start under adverse conditions.

Another very important use of rye on soils so poor that clover will not grow, is to supply nitrogen in the form of green manure. This practice is often followed on sandy loams and even sometimes on clay. The rye is sown in the fall and plowed under in the spring about ten days before time to plant corn. The reason for this is to get all the growth possible before it is turned under. After plowing, roll. The

rolling packs the soil down firmly to the bottom of the furrow and allows capillarity to act. If the ground is not rolled, the growth of rye turned under will form a layer that will hold the soil from above away from the soil below, hence the layer which was turned will dry out so much that anything planted in it will not grow. The moisture would rise to the bottom of the furrow and would be unable to go further because of the layer of rye growth next above it. A heavy roller will force the particles of the turned soil so closely to the bottom of the furrow that the growth of rye between them will not seriously interfere with the rise of water. After rolling, harrow. Harrowing forms a mulch on the surface which prevents evaporation. The roots of the rye which has been plowed under tend to bind the soil particles together if it is sand, and to loosen up the soil if it is clay. Now we have an ideal bed for corn. The green rye has much nitrogenous material which it has taken up from the leachings of the late fall and early spring rains, and this is readily available. The ground is firmed and the dust mulch prevents evaporation.

Fall rye will prevent blowing on sandy soils. The great damage done by blowing is in the early spring after the ground is dry, and before the spring grains have taken root. Often a heavy wind will raise a sandstorm filling the air with sand comparable to a blizzard in winter. The grain will be laid bare and dry, or as is often the case, carried away from the place where it had been sown. Rye which has had a good fall growth will prevent the blowing of the soil upon which it is growing. If the fields are laid out from north to south—across the direction of the prevailing winds, and the rye is sown in several strips instead of one field, damage from blowing will be materially lessened.

Rye is valuable as a pasture crop. Pasturing of rye is often practiced on both sandy and clay soils. It is particularly valuable on sandy soils because pasture is often short in late fall, when rye pasture becomes available. Occasionally rye may be used as a spring pasture. If pastured judiciously the plants killed or permanently injured are inconsequential. Whereas on light soils pasturing is a positive advantage for it compacts the soil and makes conditions more favorable for clover to get a start. Pasturing in spring when seeded to

clover should be done with caution, as the tramping of stock in spring might kill the clover after it had germinated. Sometime the season is so favorable in the fall that the rye would attain a growth which would result in winter killing. In such cases pasturing, to check this growth, is a necessity.

In many respects, rye is our best nurse crop. The culms have comparatively few leaves in late spring, hence the young clover gets more sunlight and air than it does with other cereals when used as nurse crops. Rye is the earliest grain crop to be cut and is therefore out of the way early, to the advantage of the clover. It might be well to state here that clover does best without a nurse crop and some soils are so poor that clover will not catch if rye is used as a nurse crop.

Where soiling is practiced rye is an important factor. It is usually the first of the series of soiling crops, and because of its heavy growth, furnishes a large amount of green feed. The time when it is most valuable as a soiling crop is between the time of heading and the beginning of the formation of grain. This period is rather short, being only ten or twelve days. Before heading the dry matter per acre is too small to make it profitable and after the seed begins to form, the straw gets hard, woody and unpalatable.

Owing to its heavy growth in late fall, rye makes a splendid cover crop for orchards.

The straw is a valuable product of the rye crop. It is used for bedding of stock, packing of furniture and nursery goods, in making straw goods and has been used to quite an extent in the manufacture of a coarse brown paper.

Rye flour is not used as extensively now as it was formerly for bread. It contains gluten and will rise with yeast, but the quality of the gluten is not equal to that of wheat flour. The color of the flour is darker than that of wheat and has a rather strong flavor peculiar to the rye.

A very small quantity of rye is used in the manufacture of distilled liquors. The by-products from milling and distilling are used for stock feed, and in some cases the grain itself is used in this way.

In conclusion I repeat that rye is by far the best cereal crop for the large area of sandy soil in this state. I dare say that in some extremely sandy sections, rye is almost the salvation of the farmer. It will give him some returns where

practically every other crop will fail. It conserves the nitrogen which would otherwise be lost through leaching during the late fall and early spring rains. While rye will not add fertility to the soil, yet by careful management, waste of fertility can be reduced to a minimum by the use of this crop.

FALL VS. SPRING PLOWING IN WISCONSIN.

L. F. GRABER, MADISON.

Fall plowing has decided advantages under certain conditions in Wisconsin. Of course it is not a practice of universal application. On our lighter, sandy types of soils where wind erosion and soil washing are matters the farmer has to contend with, a legume or cover crop not turned under until spring will accomplish more for the subsequent crop than will fall plowing. However, on our heavier types of soils such as the clays and clay loams, where the contour of the land will not permit excessive soil washing, fall plowing has distinct advantages.

MOISTURE CONTENT OF THE SOIL INCREASED.

Fall plowing tends to conserve moisture. The loosened and broken surface of plowed land acts as a mulch which holds the moisture accumulated by heavy fall and early spring rains in the soil and prevents the great losses through capillarity and rapid surface evaporation in compacted, unplowed soils. In one of the numerous experiments at the Wisconsin Station, which has proven this assertion, the fall plowed land contained over 110 tons (over an inch) more water per acre in May, than did the adjacent plot not plowed. Other stations have shown similar results.

The compact stubble field or sods does not permit easy entrance of heavy fall rains and often there is much surface water run off while the loose fall plowed soil acts like a sponge in this regard.

PLANT FOOD LIBERATED AND THE TILTH OF THE SOIL IMPROVED.

The action of alternate freezing and thawing in the late fall and early spring disintegrates the lumps of soil, improves the

tilth and liberates available mineral elements of fertility, especially potassium and phosphorus. In the spring this gives the young crop a vigorous start during this critical period of its growth.

The physical condition of heavy clay soils is especially improved by the granulating effect of freezing and thawing of fall plowed land. Particular care needs to be taken in spring plowing heavy clay soils. If they contain too much moisture puddling will result which leaves the field a mass of almost unbreakable clods. If plowing is deeper than previous plowing the new soil brought to the surface will not work up well, and the tilth will be greatly injured.

These dangers can be avoided to a great extent by fall plowing. Weather conditions as a rule are more favorable and where deeper plowing is practiced the action of freezing and thawing will subdue the new surface soil and bring about a good physical condition.

OTHER REASONS.

Generally the Wisconsin farmer has more time to plow his land in the fall than he has when the rush of spring work is at hand. Oftentimes weather conditions do not permit of early spring plowing. Invariably this results in delay in getting small grains in early—a very important matter in good grain growing in this state.

In general where conditions will permit fall plowing is advisable but it does not follow that good results cannot be secured with early spring plowing.

THE MANUFACTURE OF POTATO FLOUR.

RICHARD F. ADAMS, CAMPBELLSPORT.

About six years ago I heard of flour being made from potatoes which were run through heated rollers. Thus the moisture was taken off; they were then ground to a fine flour, thereby the principal qualities of the potatoes being preserved indefinitely.

A few months ago an opportunity to investigate this very interesting subject was brought to my notice, which is profita-

ble especially to agriculturists who raise large quantities of potatoes at long distances from markets. I have done considerable probing to find out the possibilities of erecting a factory in my home town.

Potato flour is milled in Germany and its importation to this country is said to have steadily increased since its manufacture. This shows its production is rapidly being taken advantage of, and is becoming more generally known every year by its excellent qualities and its many uses. For home bread making, sausage filling, cotton sizing and its uses in bakeries, confectionaries, etc., etc.

For bread making it is mixed with wheat flour just before baking, and from 3% to 5% is used.

Potato flour is nothing new in the old country and those who are skeptical as to such a product being milled, should go to some large grocery stores to find out, or to some wholesale dealer, as Fred Arenberg, of Wollaston, Massachusetts, or come to me and I will get a sample for you. Then you can make a practical test of its merits. As I know by actual experience that potato flour is as nutritious as wheat flour and more so than rye, making a moister and better loaf, thus keeping fresh much longer.

Having a sample shipped to me we tested its merits at home. As near as I can find there are 23.6 lbs. potato flour in a hundred pounds of potatoes.

I found in the city of Fond du Lac one large grocer who dealt in the commodity, this grocer referred me to two wholesale dealers, viz., A. R. Pahl & Co., Milwaukee, and Swagier Wanier Co., Chicago, who deal in potato flour, showing there must be some demand for the product.

A friend told me that when he was clerking in Milwaukee ten years ago he sold potato flour every day, and that he liked it better than buckwheat.

As I have stated before, it is imported as yet, but when its merits become more generally known the growth of this new industry will increase rapidly.

• I was told that it was a profitable business and so became anxious to call the farmers' attention to it. With the aid of a chemist book I found a profit of 10 cents per cwt. upon potatoes at \$1 per cwt., or 60 cents per bushel.

I trust that each one interested in this subject will make a thorough investigation of it and if satisfied all that remains is organization to bring success to the project.

The advantages of potato flour are:

1. Preservation of the principal qualities of potatoes indefinitely.
2. Transportation charges small.
3. Wisconsin being adapted for potato culture and near markets.
4. It withstands heat and cold.
5. Potatoes will have a wider range of uses.
6. It is claimed to make a saving of \$1 a barrel on wheat flour.

GROWING AND CURING GOLDEN GLOW CORN.

A. L. WAGNER, HAVEN.

For the past four years we have been growing Golden Glow corn both for seed and fodder, starting with seed that was procured from the Experiment Association. This variety has done exceptionally well for our community which has a rather short growing season on account of its close proximity to the lake. It matured every year by Sept. 20th, being planted somewhere around May 20th. The average yield has been 63 bushels of shelled corn per acre.

The preparation of the land for the crop consists of the following method. A two-year old clover and timothy sod is covered with a good dressing of manure, and is plowed in late fall, which is preferred because it gives the sod time to decay and to settle better; also causing a large number of insects and weeds to be killed by the frost. In spring as soon as the land is dry enough to be worked the field is gone over with a harrow or disc to loosen up the soil and check evaporation, also causing the soil to warm up and starting weeds to sprout, which are killed when the field is prepared for planting.

We go over our field about four times with disc and harrow and then roll it, a good seed bed is then usually the result. All our corn is drilled making the rows three feet apart, and two kernels every twenty inches in the row. The depth of plant-





FARM HOME OF A. L. WAGNER, SHEBOYGAN COUNTY, WITH CORN CURING HOUSE ON RIGHT.

This beautiful residence is located on a 100 acre farm about 2 miles west of Lake Michigan. It is all under cultivation except a six acre wood lot which has wisely been retained and serves as an example of proper fore-sight.

Dairy cattle and hogs are kept upon the farm but it is especially noted for its pedigree seed grains. No member of the association has been more careful in growing and disseminating the pure bred grains. Through his success in growing and curing the Golden Glow corn, he has been instrumental in changing the complexion of the corn in Sheboygan county. His pedigree barley, oats, rye and wheat are of the best and he is noted as an alfalfa grower and producer of fine clover seed. Mr. Wagner expects to erect at his nearest shipping point an elevator and store room, especially for pure bred seeds. The association predicts a successful future for Mr. Wagner in his efforts in banishing scrub grains forever from his section of the state.

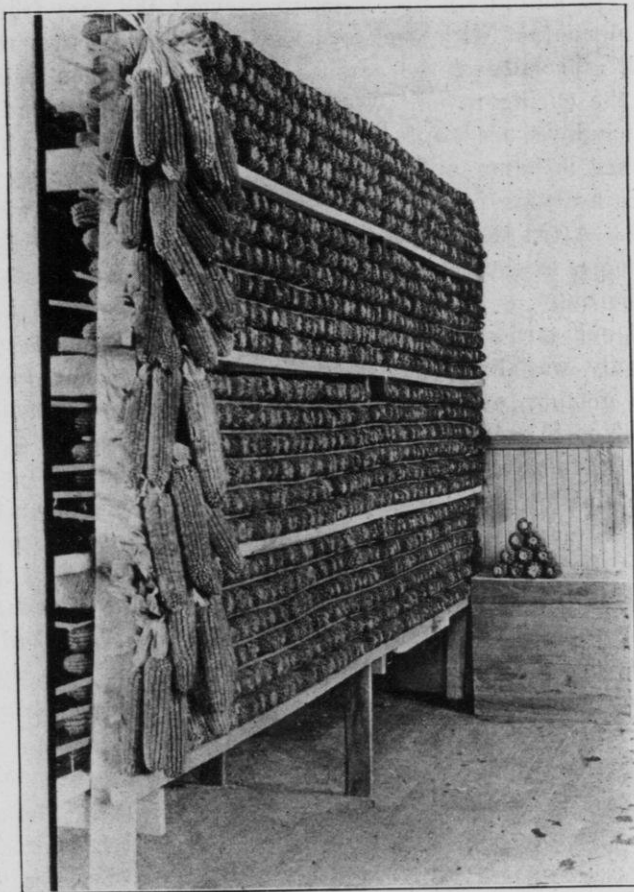


RESIDENCE AND FARM BUILDINGS ON THE MAPLE LAWN FARM.

Fred G. Stark, Manager, Washington County.

The Maple Lawn farm is noted far and wide for its pure bred seed grains. Through close attention to systematic rotation of crops and combining live stock work with the production of pedigree seed grains Mr. Stark has made his farm one of the most productive in the state. His pure bred seed grains are noted for their high vitality and perfect germination and through his efforts in the dissemination of the same the pure bred seeds have taken possession of the fields in his locality.

ing depends on the soil, on clay loam it is planted at a depth of two inches while on a sandy soil three inches are allowed. After planting the field is dragged, and is then left until the rows can be seen, when cultivating is started; rather deep at first, then shallower at each cultivation to prevent root prun-



Showing section of A. L. Wagner's corn curing room. Several hundred bushels of Golden Glow corn cured annually.

ing, because the roots spread out as the corn grows larger, the last few cultivations being mainly to keep up a dirt mulch. After four or five cultivations the field is usually laid by, the corn being too large to do good work with a team.

When the corn is well matured, the ears are snapped from the stalks and taken on the barn floor, where they are husked

and sorted, all large and well shaped ears are reserved for seed, the others being used as feeding corn.

In drying our seed we practice kiln drying in a building fitted with racks and a stove. The corn is piled on the racks, placing two $\frac{1}{4}$ inch square slats between every row. These slats are absolutely necessary to prevent the ears from coming in contact with each other, which would cause them to mold, especially if the ears are rather wet when being put into the curing room. When the days are bright and warm the windows are kept open, and a fire is started when the weather is damp and cold. Good ventilation is very essential in a drying room to insure a good circulation of air at all times. After the corn is well dried the fire is not kept up any more, as the frost will not injure the seed after the moisture is out.

All our corn is sold in the ear, which forms to my opinion the only way to buy seed corn, as the buyer can see what he is getting, and also enables him to make a germination test of each ear.

We have now been curing and selling seed corn for three years and have not experienced any trouble whatever to dispose of our surplus at a good price. Last fall a large number of farmers in our community ordered their seed in advance of the season, even before it was being put into the drying room. This fact shows that this corn is looked upon as a splendid variety for this locality, and I am sure that the time is not far distant when everyone in this vicinity will be growing Golden Glow corn.

ALFALFA SESSION.

GIVEN UNDER AUSPICES OF THE ALFALFA ORDER OF THE EXPERIMENT ASSOCIATION

PRESIDENT'S ADDRESS.

JAMES B. CHEESMAN, RACINE.

Before the initial work of organization was begun it was well to ask do we want more bodies, and more machinery? Professor Moore and myself concluded that a club of alfalfa growers within the Experiment Association was the best thing because it made effective work possible immediately. Before this meeting could be convened we needed to know the area already planted to alfalfa, and the general state practice with reference to the plant. I shall be satisfied if we can show that alfalfa is grown in 80 per cent of the counties, and that will cover the state, though we may not grow more than 100,000 acres. For propaganda we shall have to enlist the editors of the country papers, and ask them to publish from time to time such matter as we can secure on alfalfa growing, harvests, and its place in rotations.

I shall not use the time by offering you any matter of my own on alfalfa culture. We have a full and varied program which will be presented by men long trained as successful farmers, and experienced in the treatment of the various phases of the subject. We thought by way of introduction it might be well to have the business side presented by such a man as Mr. A. P. Grout of Illinois, the farmer-banker who comes to us rich in experience, full of enthusiasm, hope and expectation.

Competent observers tell us that during the last twenty years the production of alfalfa has doubled every five years, and that it is just twelve times as big as it was in 1890. Alfalfa is worth more than double what it was when first recognized as a forage plant. The great rapidity with which it is being substituted for oats, or grain of any kind is significant of

value. It is safe to say that before long the oat ration for horses will be greatly modified, and the wider uses of the plant will surprise many of the best informed, and most enthusiastic growers, and users. While we shall not grow any smaller areas of corn we may all be very sure that alfalfa will increase its area at a much greater rate than the corn plant. Alfalfa will get its rightful place as a farm crop, but what we should concern ourselves most about to-day, is its place in rotations of crops.

If we are to grow enough wheat we must rely on rational rotations of crops rather than enlarged areas of raw land. The bugle call for sound agriculture has been heard throughout the world. It is as loud and almost as insistent in the new Northwest as it is in old settled states like Illinois and Wisconsin.

One happy thought should console and encourage us in our work. It is this, new lands are increasing in value most rapidly. The mortgage holders, the bankers, and the railroads are settling and developing these lands at a rate of speed almost incredible to those who have not seen it. To maintain these values investors must insist on systematic farming, and the planting of alfalfa not later than five years after breaking. The plantings should be at least five per cent of the areas planted to cereals. Even at this rate it would require twenty years to get the plant all over a farm supposing all the land was available for it. The example will be enough and when once pioneer farmers have seen a patch and used the plant their loyalty is assured.

With the steady increase in the cost of producing all animal products one may pause a moment and ask have any of them appreciated so rapidly as eggs, milk, butter and cheese? The high price of milk in cities has greatly stimulated milk condensing. The consumption of butter, cheese, and milk in the first class cities is not increasing relatively to the increase in population. A recent market report shows a scale of prices not equaled within twenty-five years. In Northwestern Minnesota, and in Manitoba I recently heard of poultry yards that would eclipse anything in the East twenty years ago. Less than a month before Christmas Winnipeg imported quite a few shipments of milk and cream from St. Paul. Last September I told you that New York reached north for a third

of her milk 400 miles every day. Now Winnipeg comes South a distance fifteen per cent greater. Milk is retailed in Manitoba, North Dakota and Saskatchewan at double the price paid in Madison.

Enough facts have been presented to set you thinking. Alfalfa will produce a greater value per acre than any other farm crop. It has the merit of rebuilding soils, and maintaining the fertility of the state when it is accorded its proper place in rotation, and in the appreciation of the farming population.

SECRETARY'S REPORT.

L. F. GRABER, MADISON.

Fellow Members of the Alfalfa Order and Wisconsin Agricultural Experiment Association and Friends: I am glad to have the opportunity of making the first Secretary's report of the Alfalfa Order of the Wisconsin Experiment Association. I firmly believe we have begun a work which will bring about great results in the way of promoting the agricultural interests of the State of Wisconsin. I believe today there is no one other movement which will do as much for the general agricultural welfare of the entire state as will the effectual extension of the small acreage of alfalfa now being grown in the state of Wisconsin. There is no one other hay crop that equals alfalfa in its feeding value; there is no one other hay crop that adds as much fertility to the soil and there is no one other hay crop that will equal alfalfa in yields per acre. And yet, to-day it is only raised on one farm out of every forty. To-day, there are only 18,000 acres of alfalfa grown in Wisconsin against 3,000,000 acres of other hay crops.

AN ALFALFA ASSOCIATION.

It is due to this comparatively small acreage of such a truly marvelous crop that the Alfalfa Order of the Wisconsin Experiment Association was established. It was felt by energetic and progressive agriculturists that Wisconsin farmers did not fully appreciate the true value of alfalfa as a forage

crop. That it can be successfully grown has been demonstrated time and again by numerous tests carried on by the Agronomy Department of the Agricultural College and by tests of farmers themselves. With this in view alfalfa has been and is to-day a neglected crop in this state. To encourage a more extensive and widespread growth of this valuable plant no better method could have been used than that of co-operation. Due to the efforts of Professor R. A. Moore, of the College of Agriculture; and Mr. Jas. B. Cheesman, Racine, Wisconsin; a meeting was held at the State Fair, September 14, 1911, at which the Alfalfa Order was organized, as an auxiliary to the Wisconsin Agricultural Experiment Association, a body of sixteen hundred farmers, which has done so much in the way of establishing Wisconsin's world-wide reputation as a great pure bred seed producing state. Officers were duly elected as follows: Pres. Jas. B. Cheesman, Racine; Vice Pres., Ex-Gov. W. D. Hoard, Ft. Atkinson. Secretary-Treasurer, L. F. Graber, Madison; and a constitution and by-laws were adopted.

ALFALFA, A NEGLECTED CROP.

As its initial work the Order began an investigation to secure some data relative to the acreage of alfalfa now grown in the state, why it was not more generally grown, its adaption to soil condition, etc. The idea was chiefly to obtain the farmers attitude towards the crop. Over 1000 of the following inquiries were sent out to members of the Experiment Association and other progressive farmers.

Kindly fill out the following outline and mail in enclosed envelope immediately:

Name

P. O. Address..... County.....

Are you a grower of alfalfa?.....

What is the acreage of alfalfa on your farm?.....

Size of your farm?.....

Do you grow any alfalfa seed?.....

Best yield of alfalfa seed secured per acre?.....

Best yield of alfalfa hay per acre?.....

Estimate the number of acres of alfalfa grown in your county.....

Does alfalfa do well in your locality?.....

Why is it not more generally grown?.....

What is your opinion of alfalfa as a profitable forage crop?.....

As a feed for live stock?.....

At the present writing 513 replies have been received, the results of which are summarized as follows:

Number of replies to date.....	513
Number of growers of alfalfa.....	394—80%
Number of growers of alfalfa seed.....	5
Average yield of alfalfa hay.....	4.4 T
Number reporting alfalfa did well in their locality.....	360
Number reporting alfalfa did not do well in their locality..	98

Reports on why alfalfa is not more generally grown in Wisconsin:

Per cent stating due to—

- (1) Lack of knowledge relative to crop and proper methods of culture not being used..... 22%
- (2) Value not appreciated..... 22%
- (3) Conservatism, new crop, timothy good enough, etc... 16%
- (4) High cost of seed, difficulty in securing good seed.. 13%
- (5) Lack of confidence, and fear it cannot be grown.... 9%
- (6) Hard to get stand..... 9%
- (7) Soil not adapted..... 9%

Number reporting alfalfa an extremely valuable feed and profitable forage crop.....	366—(100%)
Number not reporting on this question.....	147

From the reports of these farmers, eighty per cent of whom are growers of alfalfa, a broad idea can be obtained of the status of alfalfa growing in Wisconsin. The chief reasons given why farmers hesitate to grow alfalfa are far from being sufficiently important to hinder and progressive farmer from attempting to grow this crop.

Eighty-two per cent of the replies show that alfalfa is not receiving more attention for the following insufficient reasons. Farmers do not know how to raise it and are not using correct methods of culture; the value of the plant is not being appreciated; farmers are conservative and do not want to attempt growing any “new-fangled” crops; alfalfa seed is somewhat high priced (this year only a little above timothy and clover!) and it is somewhat difficult to secure good seed; farmers lack confidence and fear it cannot be grown; they are afraid to “tackle” it.

WE CAN GROW ALFALFA IF WE WANT TO.

Only eighteen per cent stated that it was hard to secure a stand and that the soils in their localities were not adapted. Perhaps they were not. Perhaps their soils were acid or poorly drained. But these are difficulties that can easily be

overcome. Lime will neutralize the acidity and tiles will run off the excess soil moisture. Gentlemen, if we want to grow we can and we can grow it if we want to. The Alfalfa Order plans on the wide dissemination of information relative to the proper Wisconsin methods of growing alfalfa, both by bulletins and lectures. Alfalfa exhibits will be put up at county fairs and at the State Fair to arouse and stimulate rural interest in this crop. Every member of the Order should not only be a grower but a demonstrator of alfalfa growing in his locality so that in our united efforts we will destroy this unproductive sentiment that alfalfa cannot be grown in Wisconsin and bring our farmers to a realization of the immense value and importance of this crop to Wisconsin agriculture.

OUR LARGEST ALFALFA GROWERS.

The five largest growers of alfalfa in Wisconsin, according to the information received through 1000 inquiries sent out, are as follows:

	Acres
1. Jno. Waelti, Monroe, Wis. (Green county).....	140
2. C. M. Davis, Corliss, Wis. (Racine county).....	79
3. Jno. V. Seymour, Lake Geneva, Wis. (Walworth county)	70
4. W. R. Curtis, Trevor, Wis. (Kenosha county).....	60
5. Gordon Valentine, Genesee Depot, Wis. (Waukesha county)	60

Mr. John Waelti, Monroe, Wis., is no doubt the most extensive grower of alfalfa in Wisconsin to-day. On his 220 acre farm in Green county he is now raising 140 acres of alfalfa. It will be of interest to read what Mr. Waelti says about alfalfa.

“Seven years ago the farmers did not know how to sow it to get a stand, now many farmers will sow no other seed but alfalfa.”

What is your opinion of alfalfa as a profitable forage crop and as a feed for live stock?

“It is the most profitable field crop I know of. I feed it to cattle, horses and swine with the very best results.”

The opinion of the largest and most successful growers of alfalfa in this state should bear considerable weight and is of great importance to us at this meeting.

IMPORTANT STATISTICS.

I have compiled in round figures from the most recent United States' Census report the following statistics:

	Alfalfa.	Clover alone.	Timothy and clover.	Timothy alone.
Acreage.....	18,000	119,500	1,600,000	767,000
Amount (tons).....	50,000	194,000	2,500,000	1,110,500
Value (total).....	\$562,000	\$1,572,000	\$22,500,000	\$10,825,000
Value per acre.....	\$31 00	\$13 20	\$14 00	\$14 00
Yield per acre (tons).....	2.8	1.7	1.6	1.4
Value per ton.....	\$11 20	\$8 00	\$9 00	\$9 70

It is of interest to note that we are growing over 700,000 acres of pure timothy (a crop which has ruined the fertility of more than one farm) and only 18,000 acres of alfalfa (a crop that will in future be used to build up some of these same farms that timothy has ruined).

In value per acre alfalfa has twice the market value of any of the other hay crops. In yield per acre it stands at the top as well as in market value per ton. A word of explanation may here be necessary. The value of timothy per ton is quoted higher than that of clover. This does not mean that clover has less feeding value but is due to the fact that timothy is a readily marketable hay and is much in demand on city markets where high prices are paid. Clover is not a market hay, but it does not make a good horse feed and its demand in the cities is very limited; it is fed chiefly to cattle on the farm where it has been raised. Consequently, its market price is lower than timothy although its feeding value for beef and dairy cattle is much higher.

LEADING COUNTIES IN ALFALFA PRODUCTION.

Statistics show that the following seven counties are the largest producers of alfalfa:

	Acres
Green county	2280
Jefferson county	2251
Waukesha county	1840
Fond du Lac county	1620
Walworth county	1538
Racine county	1467
Kenosha county	1380

THE ALFALFA ORDER TO PURCHASE HIGH GRADE ALFALFA SEED.

Partially due to the fact that many Wisconsin farmers were having difficulty in securing clean, high germinating alfalfa seed and that many failures in securing successful stands were due to poor seed the Alfalfa Order has decided on the purchase of a large amount of high grade alfalfa seed for distribution among its members at cost price. At the present writing orders for no less than 32,000 pounds have been received and in buying such a large amount it will be secured at a very much reduced price. It is the purpose of the Order to place at the disposal of its members the very best seed at the most reasonable rates. Good seed is the foundation of success in the growing of any crop.

MEMBERSHIP.

In conclusion let me say that the Alfalfa Order invites the cooperation and membership of every interested farmer in the state of Wisconsin. I firmly believe with earnest efforts and assistance of the members of the Experiment Association and other progressive farmers throughout the state that we can do as much in the way of making Wisconsin a great alfalfa state of the Union as the Experiment Association has done in the way of making Wisconsin the great pure bred seed state of America.

CONSTITUTION AND BY-LAWS.

OF THE

ALFALFA ORDER

OF THE

WISCONSIN AGRICULTURAL EXPERIMENT ASSOCIATION.

ARTICLE I. *Name.*—The organization shall be known as the Alfalfa Order of the Wisconsin Agricultural Experiment Association.

ARTICLE II. *Object.*—The object of this organization shall be to promote the alfalfa interests of the state in general.

1st. By cooperating with the Department of Agronomy and the Wisconsin Agricultural Experiment Association in growing, experimenting and in the wide dissemination of alfalfa.

2d. By having alfalfa exhibits at agricultural fairs.

3rd. By having annual meetings in order to report and discuss topics beneficial to the members of the Order.

4th. By distributing literature and information bearing upon the production of alfalfa for seed and forage.

ARTICLE III. *Membership.*—1. Any person may become a member of this Order who has taken a course in the College of Agriculture at Madison or at any place in the state under the jurisdiction of the College.

2. Any farmer who is interested in the growing of alfalfa and willing to cooperate under the direction of the Order may become a member of this Order.

3. Honorary membership may be conferred upon anyone interested in progressive agriculture by a majority vote at any annual or special meeting.

ARTICLE IV. *Dues.*—A fee of 25c shall be collected from each member annually.

ARTICLE V. *Officers.*—The officers of this Order shall consist of a President, Vice President and Secretary-Treasurer, whose terms of office shall be for one year or until their successors are elected.

ARTICLE VI. *Duties of Officers.*—1. It shall be the duty of the President to preside at all meetings of the Order and to enforce the observance of such rules and regulations as will be for the best interest of the organization; to appoint all regular committees as he may deem expedient for the welfare of the Order.

2. In the absence of the President, the Vice President shall preside and perform the duties of the President.

3. The Secretary-Treasurer shall keep the records of all meetings and proceedings of the Order, also the names of all members and their addresses. He shall also keep the funds of the Order, collect all fees, pay all debts, and shall submit a written statement of all moneys received and paid out by him and shall balance his books not later than one month before the annual meeting.

ARTICLE VII. *Disbursements.*—The funds of the Order shall be used to defray its expenses or by vote of the Order for such purposes as will advance the interests of the Order and shall be paid out upon an order signed by the President and countersigned by the Secretary.

ARTICLE VIII. *Amendments.*—This Constitution may be amended at any meeting by a two-thirds vote of the members of the Order present.
By-Laws.

Article I.—The officers of this Order shall be elected by ballot at the annual meeting.

Article II.—This Order shall be governed by Robert's Rules of Order.

Article III.—All members joining at the organization of this Order, shall be known as Charter Members.

Article IV.—The time and place of holding the annual meeting shall be determined by the officers.

Adopted Sept. 14, 1911.

SECURING A STAND OF ALFALFA.

C. L. HILL, ROSENDALE.

I have sowed alfalfa following many other crops, at several different times of the year, on both level and rolling land, with and without nurse crops, and with varying amounts of seed per acre. I have secured so much better stands from one method than from any other, that I am going to speak almost exclusively of this method of seeding.

The first piece of alfalfa I tried was sowed with spring wheat, on land not particularly fitted, and while I secured a fairly good stand as to the number of plants they never showed vigor enough to make the crop amount to anything. The next I sowed was sowed in the spring without a nurse crop, and a good stand was secured, but the weeds were as thick as the alfalfa, and a good deal more vigorous. We clipped it three or four times the first year and the second and third years secured three fairly good crops of hay from it. Though it was innoculated it never obtained the dark green healthy look that good alfalfa always has.

I frequently visit friends in New Jersey, where successful growers of alfalfa all sow it in midsummer, or early fall. As weeds and especially June grass prove such a menace to the crop with me I determined to try seeding a piece in an altogether different manner from any that I have known being tried in Wisconsin. In the summer of 1906, immediately after cutting a piece of second crop clover, I plowed the land, worked it thoroughly, and dragged it several times between August and the time the ground froze.



ALFALFA ON THE THOMA FARM, WAUPACA COUNTY.

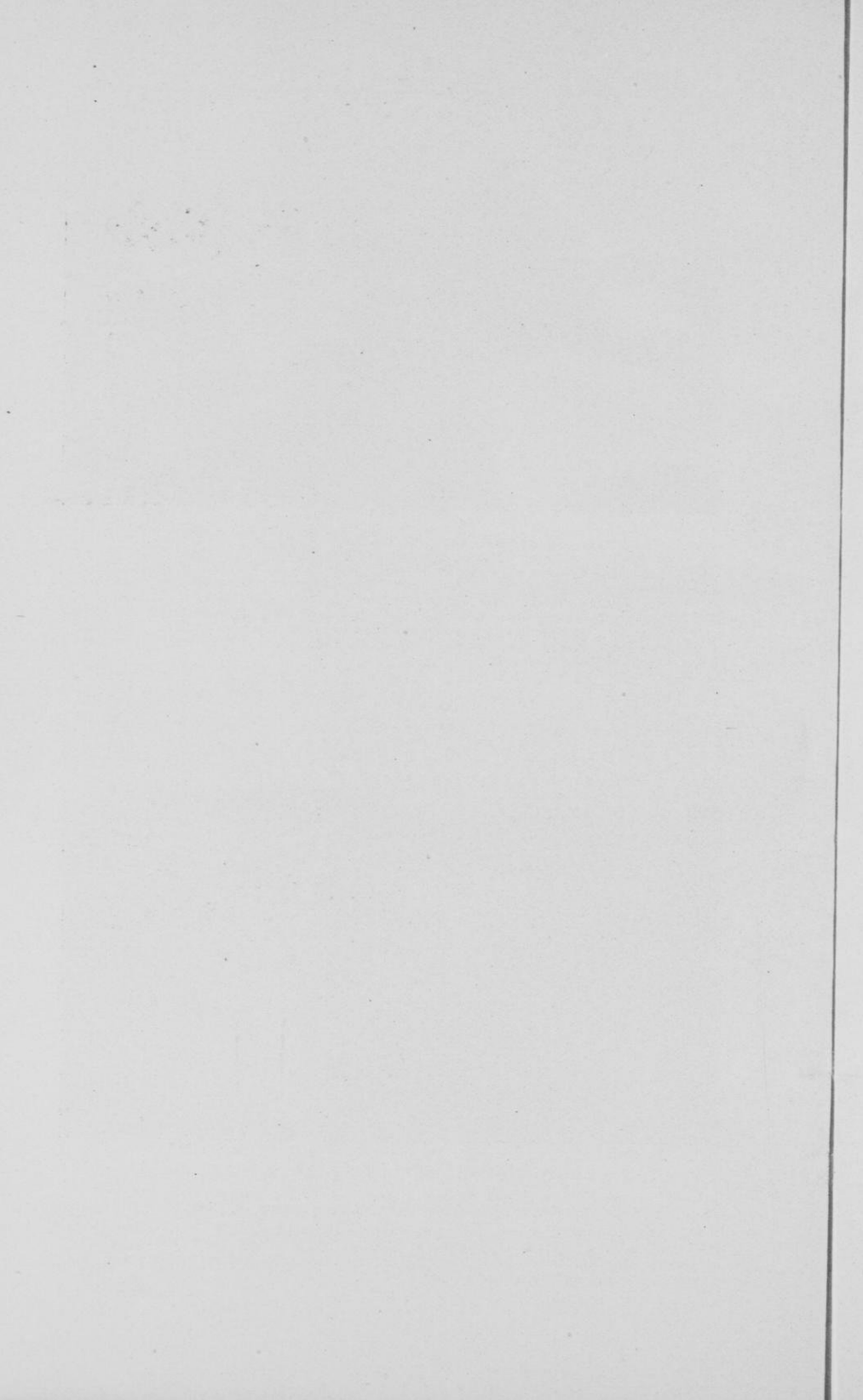
This beautiful farm is pleasantly located near the little town of Sugar Bush and through the energy and enterprise of its owner E. Thoma, has been put on a good paying basis. Mr. Thoma is one of our most faithful members of the Experiment Association and has been instrumental in spreading far and near in his section the best methods of growing and curing alfalfa. Dairying and pure bred seed grains receive due attention. Note the curing of alfalfa under cap and concrete silo.



SHOWING THE POSSIBILITY OF ALFALFA.

Alfalfa on the Spring Brook Farm. Owned by F. H. Meekin & Son, Fond du Lac county, seeded to alfalfa the spring of 1902.

The above cutting represents the twenty-sixth consecutive crop taken from the field in nine years. Estimating cuttings at one ton each per acre and alfalfa at \$20 per ton, this field would have brought to its owner over five hundred dollars per acre in the nine years.



During the winter I gave the field a heavy coat of manure, direct from the cow stable, applied with a manure spreader. In the spring I plowed the land again and worked this repeatedly from that time until August 1st, when there was a seed bed as fine as possible and about three or four inches deep. I sowed the alfalfa with a wheelbarrow seeder as I always do, going over the field twice, in opposite directions, applying 10 pounds of seed per acre each time, or 20 pounds in all, and thus made sure that all the ground received seed. It rained a day or two after seeding, and the field was soon the most beautiful green I ever saw, and has continued to look well until covered with snow the fall of 1911.

I cut 4 crops from this field in 1910 and 3 crops per year in 1908, 1909 and 1911. The land when started was badly infested with sow thistle, and had also some quack grass and Canada thistle, but this treatment killed all of these. No weeds have appeared in this field up to this time except June grass, and this is now taking possession of the field, and I do not expect to leave it more than another year.

I tried a spring tooth harrow in it last year once over, and after watching this tool used in alfalfa fields at the Illinois Experiment Station I expect to give this field a thorough dragging the spring of 1912 and watch its effects. This field was a so much greater success than any of my previous attempts at getting a stand of alfalfa that in 1908 I fitted and sowed another field in the same way, and still a third in 1909. Both of these seasons were so dry that I did not quite so completely destroy the weed seed in the soil, and I found weeds came up in the alfalfa. Nevertheless, both fields were equally as good stands as the first field, and we have now for 3 or 4 years had all the alfalfa that our herd of 70 to 90 cattle could eat. In 1906 I also sowed a field with spring wheat and secured a fairly good stand, but it was infested with June grass from the very first, and while it produced good crops of hay for the next two years, they were not nearly as good as from the other fields mentioned.

I thought I would try and see if it were not possible to secure a stand without sacrificing the year devoted to a summer fallow, so in the fall of 1909 I manured this field, plowed it in the fall and planted it to corn. We not only kept the field as clean of weeds as I ever saw a field kept with a cultivator,

but in addition we went through the field with hoes, cutting out every single weed we could find. As soon as the corn was off and in the silo we disked the field thoroughly and dragged it down fine. This was repeated in the spring and alfalfa was sowed alone, and I confess I was surprised when pigeon grass and barnyard grass appeared thicker than the alfalfa, and we cut two crops of hay from this land this year which was about half alfalfa and half these weed grasses. After the second cutting the alfalfa came on beautifully, and I have a fine stand on that field for this year.

When I said that I did not want to waste the year devoted to a summer fallow I did not say just what I meant, for a year devoted to a summer fallow is never wasted, and means increased crops for years to come, and in the case of alfalfa I am sure it will more than pay anyone who has failed to get a stand of alfalfa in other ways to try this method.

On all very rich farms in Wisconsin June grass is bound to be the worst enemy of alfalfa, and it survives in my corn fields in the hills in spite of the very best cultivation, and also survives in the grain fields, and in no other way but a summer fallow can I rid a field of it entirely, even for one or two years. I hope to find when I put the first mentioned field in alfalfa again that as no June grass has gone to seed there for many years that it will not come in so fast next time. However, if I can get a good stand of alfalfa for 5 years by this method I am well satisfied with the results.

CUTTING AND CURING ALFALFA.

FRED STUBLEY, BLACK EARTH.

The time has come for Wisconsin farmers to pay a little more attention to providing feed for winter, that is, to the palatability and digestibility of those feeds; we might say, as to the quality, have the conditions as near like summer as possible. We see how well our stock does under these conditions and we know we do not have to grain them. Now, if we will only apply a little thought in preparing our feeds for winter feeding, so as to bring nearly the same conditions, we shall hope for the best results, particularly among our stock and

dairy animals, and that we can do by supplying the proper method in cutting and curing our clover and alfalfa.

WHEN TO CUT CLOVER AND ALFALFA.

As a rule, we generally allow our clover to grow a little too old. We cannot allow clover to stand and hold the natural juices if it becomes overripe. For instance, a good deal of the alfalfa hay shipped in this winter is very dry and brittle, showing that it was cut too late. There are different ways of curing alfalfa, and we should adopt that method by which we can best conserve the protein element and that is the leaf part. The alfalfa leaf will test about twenty-two to twenty-six per cent protein, while the stalk is only about six, so we must employ the method of curing under which we will not lose the leaves. My plan has been to cut it a little on the green side, if anything, just coming into blossom. A better way, however, to judge as to the proper time of cutting is to watch the root growth. When your alfalfa is ready to cut your next growth has made a start, the growing crop should be removed, because if it is not and you wait too long, the second crop will get started and you will cut off the top of the second cutting in harvesting the first and injure the growth of it very much, so as soon as the growing crop has reached a stage of maturity and the next one starts growing, that is the proper time to cut, regardless of the blossom. Last year for instance, our alfalfa did not blossom at all, and naturally we went entirely by the root growth.

CURING ALFALFA.

In curing it the one thing to look out for is to keep the green leaves green. We know that the leaf of the growing plant is the outlet for the moisture in the stalk. If we keep the leaves green it doesn't take a great while to rid those stalks of the moisture contained in them; if, on the other hand, we let the leaves dry up quickly, we shut off the escape of moisture from those stalks, so you can see it is important to adopt the method of curing which keeps the leaves green.

My habit has been to cut it in the morning providing there is no moisture or dew on it, then rake it up the next morning

and put it up before dinner. You can cure it with or without caps. I was in a barn a few weeks ago where they cured just in the windrow, fifty acres of it. It had been raked from both ways into heavy windrows, and it made a very good quality of hay, but any method will do by which we can cure it and retain the greenness in the leaf. You can put it up in a cock about twelve hours, and the sweating begins; inside thirty-six or forty hours it is sweated out.

It can be put in the barn remarkably green; in fact, we do not want it sun-dried, we just want that moisture out of it, and when you have once got that out of it you can put it into the barn and it will keep all right. We have very little difficulty with it burning in the barn. We turn it out about one hour before hauling in, leaving it exposed to the air and sun, just dry it out, and haul it right into the barn green. Last year we cured quite a lot in the windrow. Of course the weather conditions have got to regulate that.

If we follow those methods and have plenty of green ensilage and study the quality of our feeds and the best ways of curing our hay, we will have no necessity to buy the high-priced feeds that we as dairymen otherwise have to buy.

THE WISCONSIN AGRICULTURAL EXPERIMENT ASSOCIATION.

R. A. MOORE, SECRETARY.

The organization of the Wisconsin Experiment Association was effected February 22, 1901. Its inception was determined from the need of an organized coöperative body to grow and disseminate in large quantities high yielding pure bred seed grains, the foundation stock of which had been bred by the Agronomy Department of the College of Agriculture. For several years previous to the organization of the Experiment Association, some experimental extension work had been carried on through the medium of the Short Course Alumni, but, a larger and more thoroughly organized force were needed that would be commensurate with the great work to be undertaken.



RESIDENCE AND OTHER FARM BUILDINGS ON THE AUSTIN FARM,
ROCK COUNTY.

This beautiful farm is owned and operated by W. O. Austin, Pres. of the Rock County Order of the Experiment Association. Mr. Austin is especially interested in the production and dissemination of pure bred seed grains.



A FIELD OF PEDIGREE BARLEY WITH GOLDEN GLOW CORN IN THE
FOREGROUND, ON THE FARM OF CHAS. AUSTIN, ROCK CO.

Mr. Austin is an active member of the Experiment Association and is one of the leading pure bred seed grain growers of Rock county. Note the uniformity of height and stiffness of straw of the pedigree barley.

The Experiment Association was organized with 187 charter members, and the following officers: A. J. Meyer, President, J. P. Bonzelet, Vice President, R. A. Moore, Secretary and H. J. Renk, Treasurer. The character of the work to be performed was of such a nature that it was necessary to restrict the membership to persons who had received training in the College of Agriculture.

DETERIORATION OF GRAINS.

For several years it had become noticeable that the grains and forage plants of the state and elsewhere were deteriorating. From experimentation on the Station farm it was clearly proven that it was a comparatively easy proposition to advance the yielding property of our common grains from two to ten bushels per acre. For many generations the animal breeders of the world had been active and brought about a great change in farm animals by the breeding of pedigree stock, but, no one seemed disposed to consider the larger proposition, the breeding and general dissemination of the farm crops that are the very foundation upon which our live stock industry rests.

FARM CROPS IN DEPLORABLE CONDITION.

From investigations it was found that no less than 20% of the oat crop of the state was affected with smut; several distinct varieties of barley unequal in period of ripening and of variable germination were found to be characteristic of the fields of the state. One hundred or more scrub varieties of corn were grown by our farmers. They were powerless to procure good seed of any standard variety, hence had to purchase in accordance to the scoop shovel method, often getting several strains of seed corn wholly worthless for the season's crop. Also many improvements advocated by the College were unheeded as the bulletins did not appeal to the farmer in the most forcible manner and it seemed important to have practical farm demonstrations made where farmers could see and determine the value of tests made along various lines.

To correct the above defects and many more and place within reach of every farmer of the state definite breeds of

high yielding seed grains, are the chief aims and purposes of the Experiment Association.

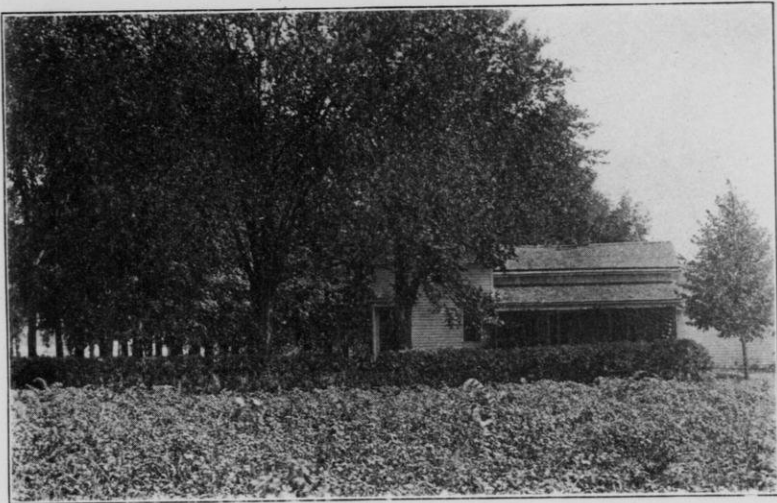
STATE APPROPRIATION.

For two years the cost of experimenting and getting out the first annual report was borne by the members of the Association, but the Legislature of 1903 passed an act by which the state appropriated \$1000 per year and paid for publishing the annual report. In 1905 the appropriation was raised to \$2000 and in 1911 to \$3000. The state funds are used for purchasing pedigree seed grains and for material and help for actually carrying on the work. The appropriation is retained in the state treasury and is drawn out by order as necessaries are needed.

As soon as pure bred corn was grown at the Station farm in large quantities sufficient seed was put into the hands of each member of the Association to plant two acres and he was requested to establish a pure bred corn center where neighboring farmers and others could see and secure the high yielding seed in future. The member agrees also to test the pure bred corn in comparison with the best strains of corn he knows of in the neighborhood and report the facts to the Secretary of the Association. In this manner from ten to fifteen hundred corn centers were established and the pure bred varieties of corn were grown and cured for seed in great quantities. Neighbors seeing the fields from time to time and learning of the high yields soon discarded their common strains and secured the pure bred varieties. By this method of dissemination whole communities started the growing of pure bred corn and the beneficial influence of the seed corn center was felt far and near.

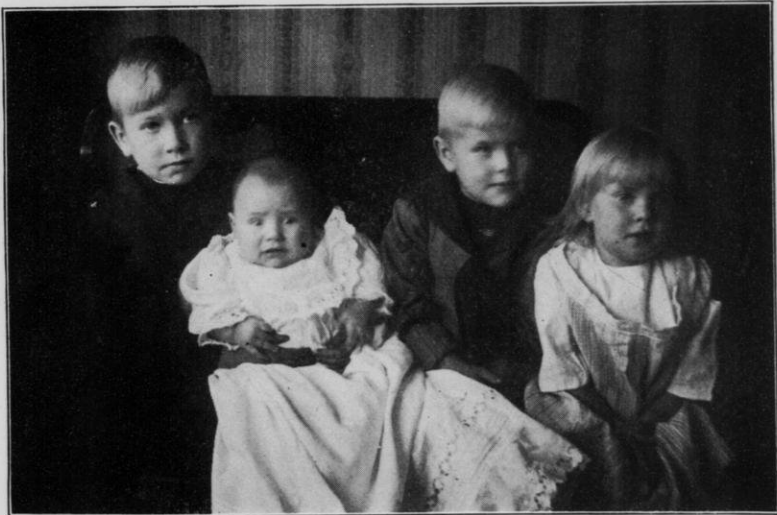
A test with the Silver King (Wisconsin No. 7) corn running through five years in which 1500 members took part resulted in the No. 7 corn giving an average yield of 61 bushels of shelled corn to the acre, 12 bushels more than the best corn compared with it.

Reports from 1020 members of the Experiment Association who are carrying on tests with Oderbrucker barley in different parts of the state show an average yield for five years of 36½ bushels per acre, 5½ bushels above that of the best varieties compared with it.



FARM HOME RESIDENCE OF NOYES RAESSLER.

This beautiful farm is operated by our worthy member Mr. Raessler and he has seen fit to make it absolutely a pure bred seed grain farm. Pedigree barley, pedigree oats and No. 7 seed corn are specialties on the farm and are being widely disseminated in Rock county. Mr. Raessler is secretary of the Rock County Order of the Experiment Association and expects to make it the leading county organization in the state.



THE COMING GENERATION OF PURE BRED SEED GROWERS.

Family of S. P. Markle, La Crosse county. Mr. Markle has taken more prizes on pure bred corn than any other member of the Experiment Association and he expects to have the good work continue.



Wisconsin has produced an average of 740,000 acres of barley annually for the past five years, or a total of 3,723,000 acres. Had this entire acreage been sown to Oderbrucker barley at the increased yield there would have been produced 18,000,000 bushels of barley more than if the common barley had been used. At an average price of 68c per bushel this would amount to twelve million dollars added to the wealth of the farmers of the state during the past five years.

The Wisconsin Pedigree barleys which have been carried through a course of twelve years' breeding were disseminated and tested in the state in 1910. In 800 comparative tests the pedigree barleys gave a yield of 3.6 bushels per acre above that of the selected Oderbrucker. Sufficient of the pedigree barley will be grown this year to more than cover the entire barley acreage of the United States and the following year we predict enough grown to cover the barley acreage of the world. Within three years we expect that not less than ninety per cent of Wisconsin grown barley will be of that one distinct variety. Such is the possibility through the coöperative work of the Experiment Association.

ORGANIZATION OF THE COUNTY ORDERS OF THE EXPERIMENT ASSOCIATION.

On account of the large membership of the Association, over 1500, scattered so widely throughout the state it was deemed advisable to organize local associations in those counties that had fifty or more regular members. Twenty-six counties are now organized. These organizations are known as County Orders of the Experiment Association and are officered similar to that of the State Association. The Secretary of the County Order is appointed by the State Association as farm inspector for his respective county and he receives his pay from the State Association for his services. His duty is to visit all members of his Order and all farms upon which pure bred seed grains are grown. He is expected to give advice to the local members in regard to facilities for growing and handling seed grains and report to the State Association.

By exercising close supervision poor grains are kept out of the market. The Wisconsin pedigree and select seed grains are now known everywhere. Foreign countries as well as all

grain raising states in America are buying the Wisconsin pure bred seeds.

The seed houses of Wisconsin and elsewhere are now able to purchase and sell to their customers distinct breeds of grains of known merit instead of the mixed varieties of unknown quantities heretofore sold. The farmer in turn gets seeds of much higher yielding power and free from weed seed at approximately the same price he formerly paid for mixed and scrub stock.

The various County Orders of the Association hold at least one regular annual meeting and such special meetings from time to time as the work in hand demands. The Orders assist in making their respective county fairs of a more educational character and they also take an active part in state and national competitive displays of grains and forage plants.

The secretary of each County Order keeps in close touch with his members and directs them as far as possible in the line of effort that will be for their general interest. Leaflets listing pure bred grains and stock are published from time to time which aids materially in finding a market for different products found on the farm.

In like manner the secretary of the State Association gets out lists of those members who are growing pedigree and select varieties of seeds.

The National Crop Improvement Association will print our lists of members having select seeds for sale in large quantities, bearing both the expense of printing and sending to all parts of the United States.

We now have a membership in the association of approximately sixteen hundred, nearly all of whom are active seed grain growers, and have equipped themselves with all the conveniences for handling the select and pedigree seed grains in large quantities. By following the method of having these seed grain centers established in practically every township of the state it has brought the select grains in close proximity to the farmer where he can have an opportunity to study the grains while they are growing and see them threshed before deciding to grow them on his own farm. Many farmers will study a cornfield or a grainfield beside the road when it would be a hardship for them to study corn from the printed page.

By the methods above mentioned the Wisconsin pure bred seed grains have become known far and near over the entire world and the revenue now coming to our state from the sale of these select grains goes a great way in gladdening the hearts of the seed growers and helps solve the great question of how to keep the boy upon the farm.

COUNTY ORDERS OF THE WISCONSIN EXPERIMENT
ASSOCIATION AND OFFICERS WHO GUIDE THEM.

Dane County Order

President—Chas. A. Lyman, Sun Prairie
Vice President—C. E. Ruste, Blue Mounds
Secretary-Treasurer—Otto Toepfer, Madison

Dodge County Order

President—Theo. Lehman, Watertown
Vice President—John R. Jones, Beaver Dam
Secretary-Treasurer—H. E. Kreuger, Beaver Dam

Eau Claire County Order

President—B. M. Arries, Augusta
Vice President—C. A. Koll, Augusta
Secretary-Treasurer—A. C. Russell, Augusta

Fond du Lac County Order

President—Math. Michels, Peebles
Vice President—R. F. Adams, Campbellsport
Secretary-Treasurer—A. F. Block, Lomira

Grant County Order

President—Walter Steinhoff, Platteville
Vice President—Chas. Wilkins, Platteville, R. No. 8
Secretary-Treasurer—Orin Bennett, Platteville

Green County Order

President—Marion L. Karney, Brodhead
Vice President—Lewis Krammerer, Brodhead
Secretary-Treasurer—C. Tochterman, Monroe, R. F. D.

Green Lake County Order

President—Ed. M. Fitzmaurice, Berlin
Vice President—Bert Brewer, Berlin
Secretary-Treasurer—Ben Parsons, Berlin

Jefferson County Order

President—R. N. Ward, Ft. Atkinson
 Vice President—H. L. Emmert, Johnson Creek
 Secretary-Treasurer—Ivan McIntyre, Ft. Atkinson

La Crosse County Order

President—S. P. Markle, La Crosse
 Vice President—Wm. Moos, Onalaska
 Secretary-Treasurer—Frank E. Balmer, Onalaska

La Fayette County Order

President—F. J. McConnell, Darlington
 Vice President—Theo Carpenter, Darlington
 Secretary-Treasurer—Orville Benedict, Darlington

Langlade County Order

President—Calvin Balliett, Antigo
 Vice President—Edward Nordman, Polar
 Secretary-Treasurer—D. S. Stewart, Antigo

Manitowoc County Order

President—Herman Roethel, Kiel, R. No. 2
 Vice President—Roland Kolb, Manitowoc
 Secretary-Treasurer—C. W. Meisnest, Manitowoc

Marathon County Order

President—G. A. Parch, Wausau
 Vice President—Herman Amhaus, Edgar
 Secretary-Treasurer—J. F. Kadonsky, Wausau

Milwaukee County Order

President—Wm. H. Bassa, West Allis, R. No. 5
 Vice President—Fred Kurtz, Hales Corners
 Secretary-Treasurer—F. J. Sievers, Wauwatosa

Monroe County Orders

President—C. F. Hansen, Sparta
 Vice President—L. A. Miller, Sparta
 Secretary-Treasurer—C. E. Hitchcock, Sparta

Racine County Order

President—Jas. B. Cheesman, Racine
 Vice President—Arthur A. Gerhard, Rochester
 Secretary-Treasurer—Edwin B. Skewes, Union Grove, R 6

Richland County Order

President—H. A. Martin, Gotham
 Vice President—Hubert Schmitz, Lone Rock
 Secretary-Treasurer—H. L. Post, Sextonville

Rock County Order

President—Willard Austin, Janesville
Vice President—James A. Carroll, Janesville R. No. 5
Secretary-Treasurer—Noyes Raessler, Beloit

Sauk County Order

President—G. W. Davies, North Freedom
Vice President—George Hengstler, Reedsburg
Secretary-Treasurer—W. A. Toole, Baraboo

St. Croix County Order

President—R. W. Brunner, Hudson
Vice President—Geo. H. Kruschke, New Richmond
Secretary—William Schwandt, Stanton
Treasurer—Chas. Stiles, Hudson

Shawano County Order

President—Albert H. Clayberg, Shawano
Vice President—August Hoebbs, Shawano, R. No. 3
Secretary-Treasurer—Dr. B. Royer, Shawano

Sheboygan County Order

President—W. L. Illian, Adell
Vice President—J. O. Parish, Plymouth
Secretary-Treasurer—O. R. Frauenheim, Random Lake

Vernon County Order

President—Nels O. Neprud, Coon Valley
Vice President—Cornelius Sebion, Westby
Secretary-Treasurer—W. T. McClurg, Viroqua

Walworth County Order

President—G. L. Harrington, Elkhorn
Vice President—L. G. Rockwell, Elkhorn
Secretary-Treasurer—J. S. Harris, Delavan

Waukesha County Order

President—Peter Swartz, Waukesha
Vice President—Frank E. Fox, Waukesha
Secretary-Treasurer—James Baird, Waukesha

Winnebago County Order

President—Arthur Cross, Winneconne
Vice President—Edw. Race, Omro
Secretary-Treasurer—J. M. Humphrey, Winneconne

Wood County Order

President—Hobert Morris, Arpin
Vice President—Simon Warlund, Grand Rapids, R. No. 5
Secretary-Treasurer—O. J. Leu, Grand Rapids

CONSTITUTION AND BY-LAWS OF THE COUNTY ORDERS OF THE
WISCONSIN AGRICULTURAL EXPERIMENT ASSOCIATION.

ARTICLE I.—*Name.* The organization shall be known as the.....
.....County Order of the Wisconsin Agricultural
Experiment Association.

ARTICLE II.—*Object.* The object of this organization shall be to promote the agricultural interests of the County and State in general.

1st. By coöperating with the Wisconsin Agricultural Experiment Association in growing and disseminating pure bred seed grains.

2nd. By having Associations' exhibits at agricultural fairs.

3rd. By having annual meetings in order to report and discuss topics beneficial to the members of the Order.

ARTICLE III.—*Membership.* 1. Any person may become a member of this Order who has taken a course in the College of Agriculture at Madison or at any place in the State under the jurisdiction of the College.

2. Any farmer who is interested in pure bred grains and live stock or in progressive farming in general may become a member of this Order.

3. Honorary membership may be conferred upon anyone interested in progressive agriculture by a majority vote at any annual or special meeting.

ARTICLE IV.—*Dues.* A fee of fifty cents shall be collected from each member annually.

ARTICLE V.—*Officers.* The officers of this Order shall consist of a President, Vice President and Secretary-Treasurer, whose terms of office shall be one year, or until their successors are elected.

ARTICLE VI.—*Duties of Officers.* 1. It shall be the duty of the president to preside at all meetings of the Order and to enforce the observance of such rules and regulations as will be for the best interest of the organization; to appoint all regular committees as he may deem expedient for the welfare of the Order.

2. In the absence of the President, the Vice President shall preside and perform the duties of the President.

3. The Secretary-Treasurer shall keep the records of all meetings and proceedings of the Order, also the names of all members and their addresses. He shall also keep the funds of the Order, collect all fees, pay all debts, and shall submit a written statement of all moneys received and paid out by him and shall balance his books not later than one month before the annual meeting.

ARTICLE VII.—*Disbursements.* The funds of the Order shall be used to defray its expenses or by vote of the Order for such purposes as will advance the agricultural interests of the Order and shall be paid out only upon an order signed by the President and countersigned by the Secretary.

ARTICLE VIII.—*Amendments.* This constitution may be amended at any meeting by a two-thirds vote of the members of the Order present.

BY-LAWS.

Article I. The officers of this Order shall be elected by ballot at the annual meeting.

Article II. This Order shall be governed by Robert's Rules of Order.

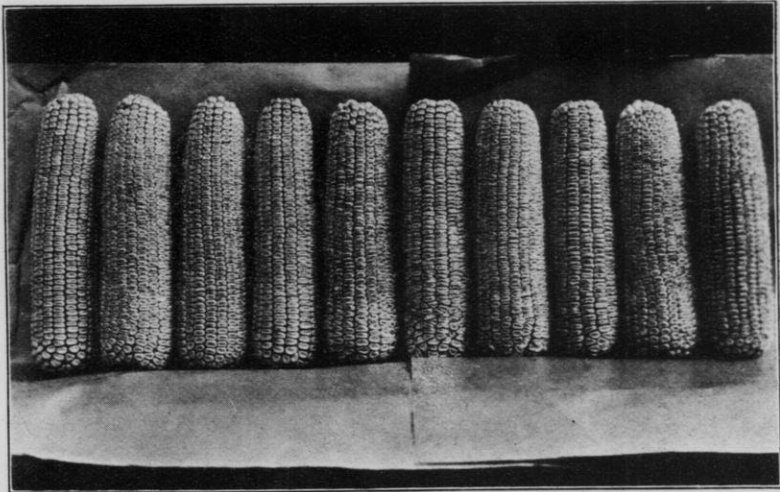
Article III. All members joining at the organization of this Order shall be known as Charter Members.

Article IV. The time and place of holding the annual meeting shall be determined by the officers.

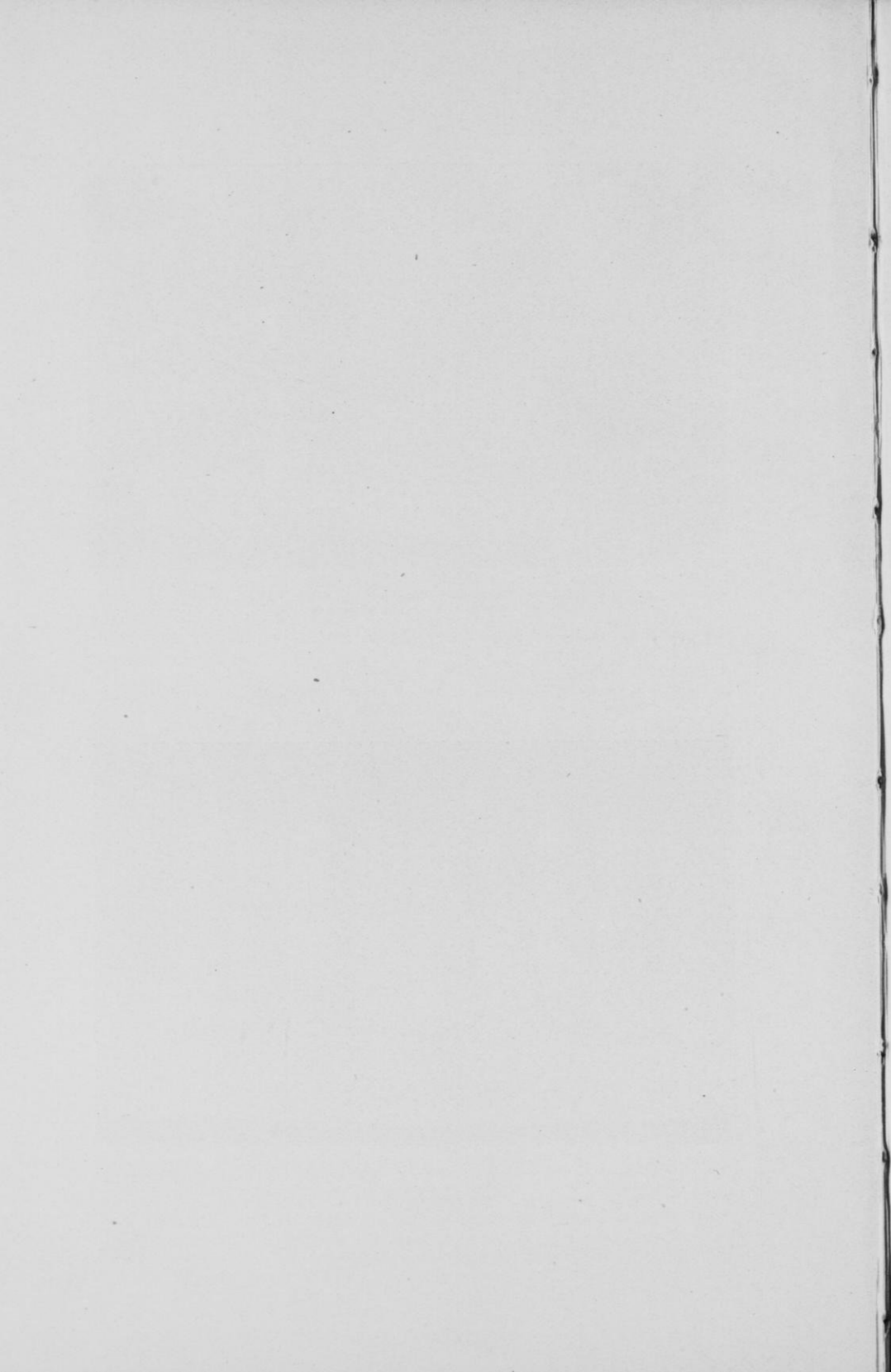
Adopted 19.....



Typical growth of Silver King corn on the Raessler Farm. Note large ears turning downward at the ripening period.



Prize winning sample of Golden Glow corn, Wisconsin No. 12, grown by Noyes Raessler. Note symmetry of ears and uniformity of sample.



REPORT OF THE FARM INSPECTOR OF SAUK COUNTY.

SUPT. GEO. W. DAVIES, NORTH FREEDOM.

The past year in Sauk county has been one of abundant harvests, especially those of hay, corn, potatoes and apples. Just now there is being gathered and stored for future use an abundant harvest of ice. The relation of crop to climate is as evident in one case as in the other.

The county order which I have the honor to represent is still in its infancy and is not quite old enough to be termed a "yearling." Forty-six members constitute our organization. An exhibit of farm produce was made at the State Fair last September and our first annual county exhibit open to members was held recently. As an advertising body the Sauk County Order of the Wisconsin Experiment Association has not otherwise come before the public. The chief activities of its members have been confined to securing pure bred seed grains and to raising a greater variety of the same. Sale and exchange of seed among the members is of frequent occurrence and results largely because of their association and acquaintance as members.

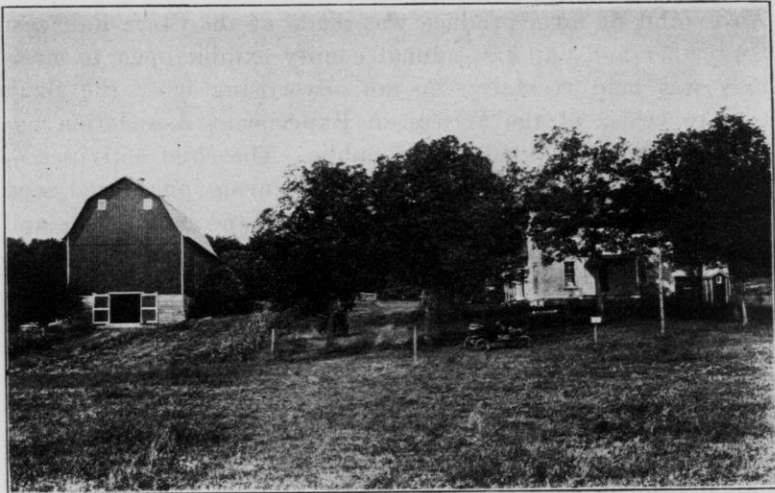
As farm inspector it has been my privilege to see the farm equipment, crops and operations of our members and other progressive farmers in all parts of our county. What is being done on a few farms in the production of better grains and live stock as well as in the use of improved methods of farming, will suffice to indicate what the members of the County Orders are doing generally.

WEEDS.

In imitation of the practice of all up-to-date farmers, I shall attack the weed question first.

In some parts of the country, especially on the lighter soil, small patches of snapdragon are flourishing undisturbed and each year witnesses a larger area that is being robbed of its moisture and plant food. Quack grass is very common on many farms and only a few farmers are making a systematic and persistent effort to rid field and roadside of this pest.

The introduction of new varieties of grains from uncertain sources together with the annual purchase of alfalfa and clover seed has led to stocking our farms with many varieties of noxious and other troublesome weeds. One small field of new alfalfa seeding was populous with thrifty growths of sow thistle. The introduction of pure bred and desirable grains and forage crops should not denote a spread of noxious and undesirable weeds. Every member of the State Experiment Association as well as the County Order members should insist upon the absence of weed seed as well as upon the purity of all seed grains sold by any member of the Order.



BARN AND FARM RESIDENCE ON THE BUNKER HILL FARM.

Live stock and pure bred seed grains farm specialties. F. S. Bunker, Sauk county.

CORN AND ALFALFA.

On the Ochsner farm, town of Troy, nearly ninety-five acres of Golden Glow corn gave an average yield of 45 bushels per acre. One field of 25 acres under more favorable conditions than the rest averaged about 75 bushels per acre. On this farm is in operation a 30 H. P. two cylinder, Hart-Parr traction engine used for pulling six 14 inch plows. Kerosene is used for fuel.

On the Sherwood farm, town of Spring Green, an interesting experiment with late sowed alfalfa has given most gratify-

ing results. In the spring of 1910 a small field was given a heavy application of air-slacked lime on one part and manure alone on the other, then plowed deep and planted to corn. In April, 1911, the ground was plowed very deep but in narrow back furrows so as to provide better drainage. During the summer the ground was disked and harrowed at intervals to retain moisture and kill weeds. The first week in August alfalfa seed was planted at the rate of 25 pounds per acre and it was a marvel how it grew. A thick uniform stand of vigorous plants from ten to twelve inches high was secured. Wisconsin No. 7 corn produced a yield of 75 bushels per acre and with its leafy fodder is furnishing silage for one of the best herds of grade Holsteins in the county. Two registered Percheron brood mares are an added source of income on this farm.

On the Bunker Hill farm, town of Delton, every effort is being put forth to make this farm second to none in production. Here is to be found one of the famous herds of Polled Durhams in Wisconsin. Bunker's improved yellow dent corn with ordinary field cultivation yields from 60 to 80 bushels per acre. One entire field (shown in accompanying picture) averaged 80 bushels per acre.

GOVERNMENT WORK.

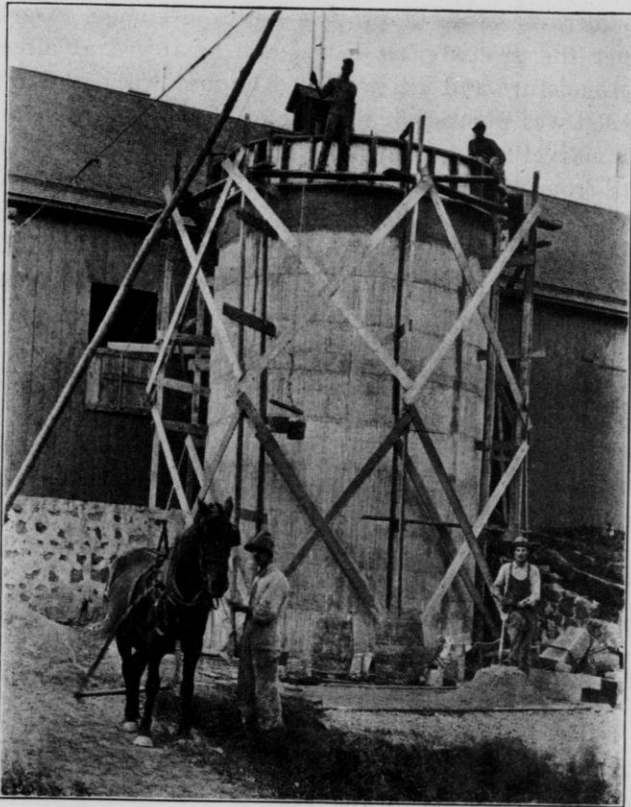
On the Wm. Wichern and Wm. Toole farms, town of Baraboo, coöperative work is being carried on with the U. S. Department of Agriculture to determine the actual cost of each farm crop produced. Daily reports are furnished, on blanks supplied by the government, which show just what these farmers are doing from the time they arise in the morning until the chores are finished at night.

DAIRYING.

Judging by the large number of silos erected the past season and the increasing number of farmers who have fields of alfalfa in good condition and other farmers who are rapidly becoming inoculated with the idea of the value of alfalfa and silage for winter feeding, the dairy cow is not being neglected. Pure bred herds of Holstein, Jersey and Guernsey

cattle may be found and a larger number of pure bred sires are each year being used to grade up good dairy herds.

Stave, cement block and reinforced concrete silos are the kinds chiefly built. Many concrete silos have been erected



CONCRETE SILO BUILDING ON THE WICHERN FARM.

The Wichern Brothers have one of the most practical farms in Sauk county located pleasantly a few miles from Baraboo, and by close attention paid to keeping up its fertility have made it one of the most productive. Live stock and pure bred seed grains are specialties upon the farm. Both William and C. H. Wichern are members of the Experiment Association and take an active part also in the Sauk County Order. They have found by experience that dairying and growing pure bred seeds should go hand in hand to insure success.

by the help of forms furnished by the College of Agriculture. The work was done without securing outside help.

CONCLUSION.

Everywhere the help and influence of the College of Agriculture and the Wisconsin Experiment Association are being



PEDIGREE SEED GRAIN DISPLAY, MADE BY LA CROSSE COUNTY ORDER OF THE EXPERIMENT ASSOCIATION.

La Crosse county is noted for its pure bred seed grain growers and the County Order has played an important part in banishing scrub grains from the entire county. The County Agricultural School at Onalaska is headquarters for the association and the annual grain display is made at the school. The La Crosse county pedigree seeds are now known over our entire state and country.



felt. These institutions are, through their graduates and members, reaching out until they affect the life and interests of practically every farmer in Sauk county and the state at large.

REPORTS OF SECRETARIES OF THE DIFFERENT
COUNTY ORDERS OF THE EXPERIMENT
ASSOCIATION.

FOND DU LAC COUNTY ORDER

A. F. BLOCK, LOMIRA.

In making this report of the Fond du Lac County Order I feel that the efforts put forth the past season have not altogether been fruitless. With the continuation of the work that was enthusiastically started a few years ago, I am pleased at this time to report to you that everything pertaining to the breeding and dissemination of pure bred seed grains is being carried on with greater anxiety than ever before.

In spite of the fact a long drouth prevailed during the growing season, we managed to get a pretty good crop, perhaps not so much in quantity as we would have had, had we received a greater supply of moisture. This experience is sufficient to give us a fair warning that if we wish to compete with a long drouth we must prepare and cultivate our soil with greater intelligence.

By reducing our fee at our annual meeting of April 1st, 1911 from one dollar to fifty cents we had quite an increase in membership over that of the previous year, thus making our Order much stronger and more effective.

The first achievement accomplished was the getting out a list of seed growers and live stock breeders. These were sent out to the members and distributed at the booth at the State Fair, also used as an advertising circular by members in their correspondence. The next achievement was the putting up of a County Display at the State Fair, capturing first place in a strong competition, thus making it the banner county of the State.

MANITOWOC COUNTY ORDER

O. R. WIEGAND, CLEVELAND.

Our Order suffered a great setback during the year 1911 owing to the extreme drought and hot weather which existed almost throughout the county.

At our last meeting plans and preparations had been made to exhibit extensively at our County Fair and to put up an exhibit at the State Fair. A special committee had been elected to have in charge the exhibits at the County Fair, but our County Fair was dispensed with in 1911 for the first time in a long number of years and for this reason, and the crops being of such inferior quality the officers of the Order decided that it was impossible to exhibit at the State Fair.

The seed growers list gotten out by our Order have been a great aid in the sale of pure bred seeds. Our third annual meeting was held March 17—18, 1911 at Manitowoc. A fine program had been arranged and a large crowd attended. It was considered a general success. We now have a membership of forty.

DANE COUNTY ORDER

RAY W. CHATTERTON, BASCO.

A meeting of the Dane county members of the Wisconsin Agricultural Experiment Association was held in the Agronomy Building in Madison on January 14, 1911 for the purpose of organizing a Dane County Order of the Association. The constitution adopted was similar to that of the other County Orders. Prof. R. A. Moore was made an honorary member of our Order.

An attempt was made to put up an exhibit at the State Fair, which brought a fair return in premiums. The showing might have been better but for the inexperience of the one in charge, and the fact that no one knew their material was to be shown until called for about ten days before the Fair. A growers list was also gotten out.

The Order has a membership of twenty at present. It is to be hoped that more of the members will join so the county will be better represented.

JEFFERSON COUNTY ORDER

IVAN MC INTYRE, FORT ATKINSON.

The Jefferson County Order was organized at the last annual meeting of the Experiment Association. Later the membership was increased by holding a meeting at Jefferson during a Farmer's School held by the Extension Department of the University. Our membership now consists of twenty-four young farmers. No organized effort was made to advertise or exhibit at the County or State Fair, the lack of funds being the principal drawback.

ST. CROIX COUNTY ORDER

WM. SCHWANDT, STANTON.

The year 1911 can be considered a good year for the County Order as weather conditions were ideal. While we have not done anything out of the ordinary, yet we have done the best we could under the circumstances.

Our first good work of the year resulted in capturing the large and beautiful silver cup from Washington county, Minnesota. Much of our time was spent in getting up an exhibit for the State Fair, and while we did not land at the top, we are satisfied that much was accomplished as it was our first attempt, whereas most of the other counties had years of experience along that line. Glenwood City held their annual Inter-County Fair Sept. 27 to 29. There we won nearly all the pure bred premiums and were paid for putting up a display of pure bred sheaf grains and grasses.

On the 21st day of November, 1911, the president and secretary of our Order presented a request to the county board to have an appropriation of \$100 set aside for the use of the St. Croix County Order and we were much pleased to have the \$100 allowed us without opposition. This money is to be used for getting up the County Exhibit for the State Fair in 1912 and the placing of pure bred seeds in every town in the county, where we are as yet not represented and for any other work where money can be used to the advancement of our county.

With the help of Prof. K. L. Hatch, who is secretary of the State Agricultural Extension work, we were successful in

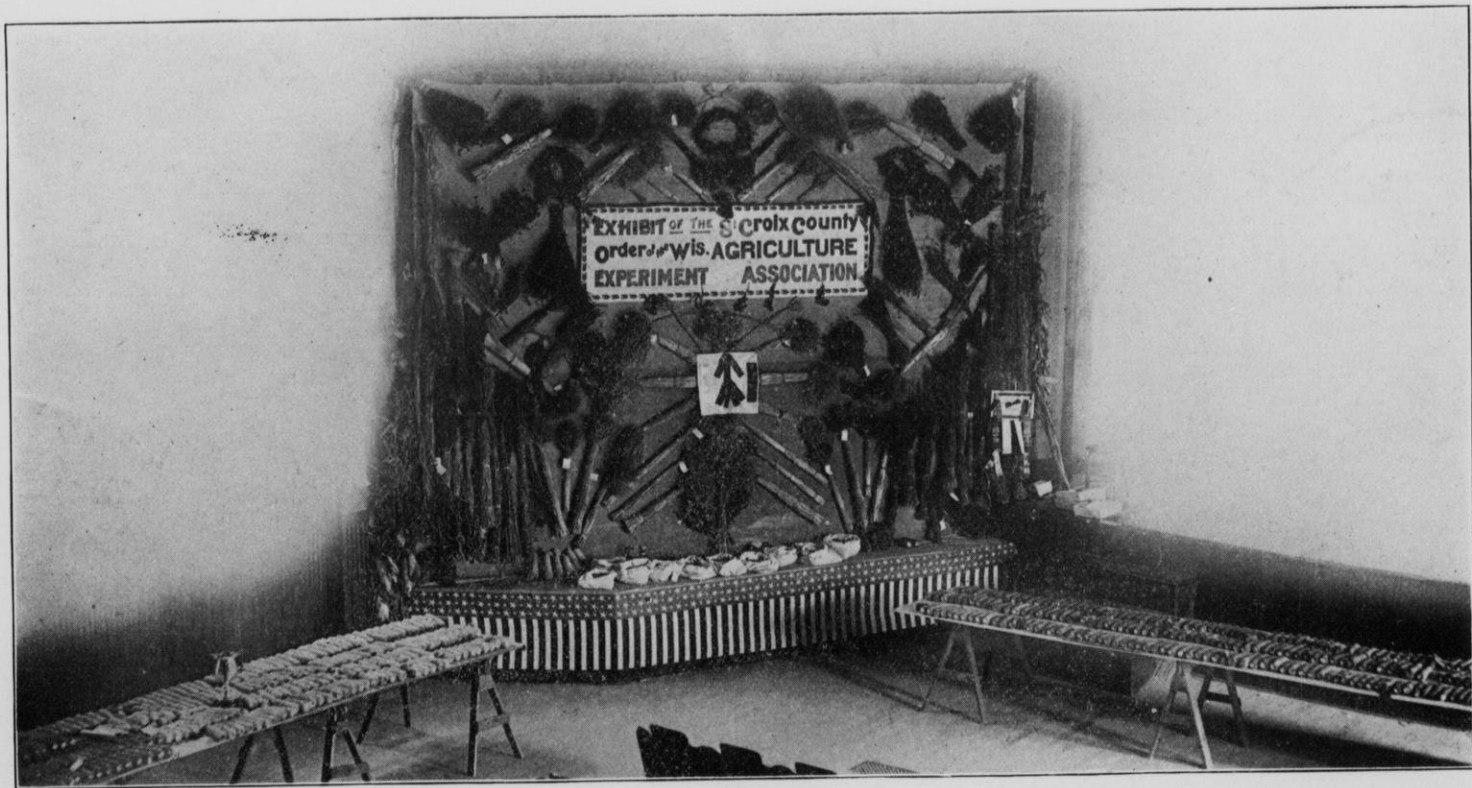
landing a corn and dairy school at New Richmond followed by New Richmond Annual Corn Show. The Industrial Club of this city helped us with the work, furnishing the hall, tables, and general necessities free which assured the success of the school. The Order in turn helped the Corn Show and put up one of the best displays of sheaf grain and grasses ever exhibited in this county. Sixty-three students were enrolled nearly all of whom were in attendance throughout the five days of the Course. I am pleased to say the Corn and Dairy School conducted by Prof. C. P. Norgord and A. C. Baer was a great success. This county is 250 miles from Madison and the farmers are unable to get the benefit of the University to as great a degree as those counties nearer by. While it has done much good in teaching the farmers how to raise better corn, grain and dairy cattle, it has also helped to drive out the prejudice against the University which exists more or less all over the state which is brought about through ignorance or selfishness. We hope we can arrange to have another such school in the county the coming winter. All members attending this Course were allowed to join the State Experiment Association and the County Order. We now have 55 members enrolled and more coming.

Our annual meeting was held Dec. 16th and besides the regular business of the meeting L. A. Baker, Cashier of the Manufacturers Bank of the city of New Richmond was elected an honorary member of our order. Mr. Baker is deeply interested in agricultural advancement and gave us every assistance possible at the Corn and Dairy School. The members of our Order had the pleasure of having with us Professors R. A. Moore and C. P. Norgord. Their talks were inspiring and the information given will be a great help to further effort on the part of our association.

BUSINESS MEETING.

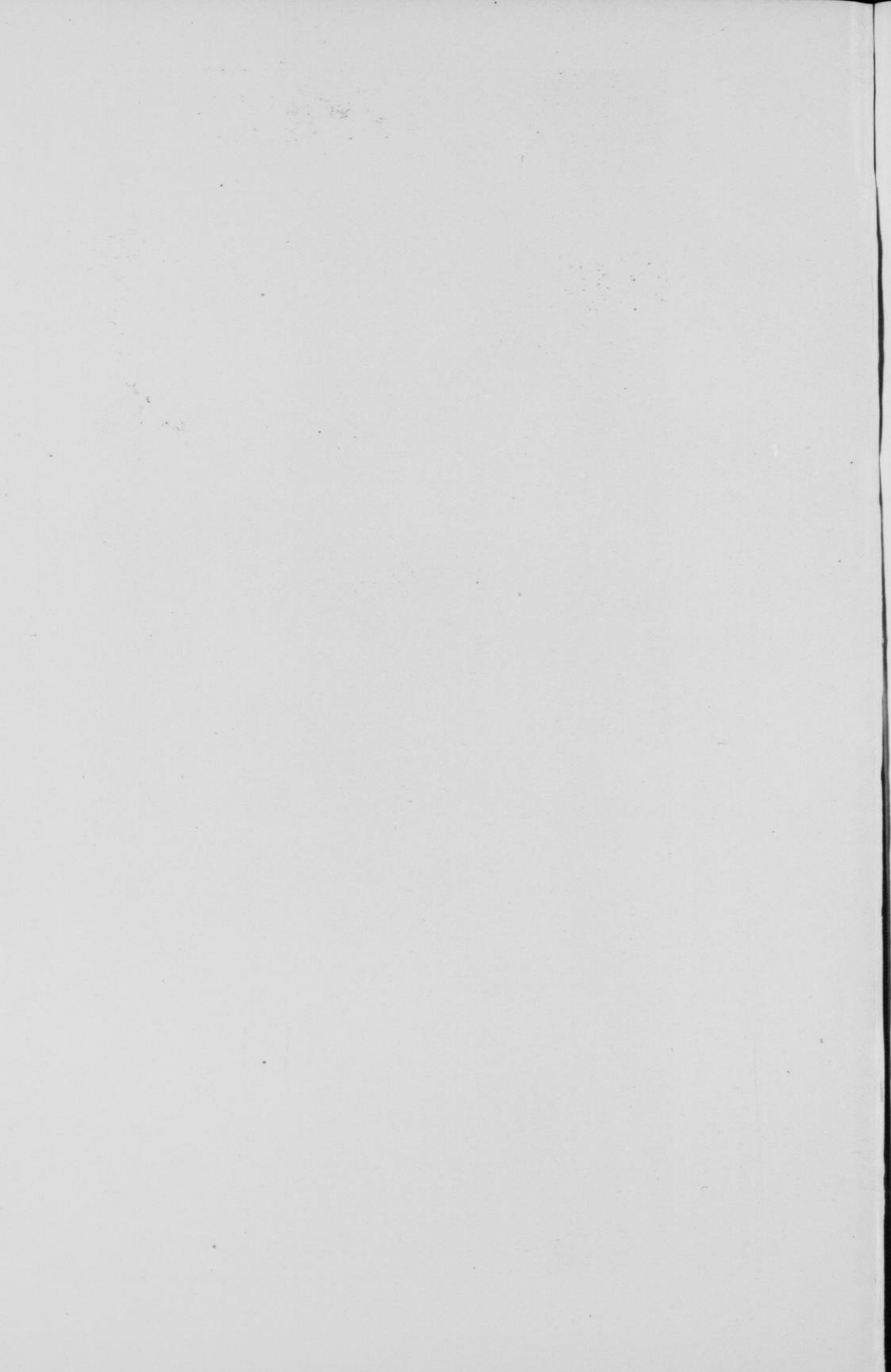
Business meeting of the Wisconsin Agricultural Experiment Association, Friday, January 26, 1912, 2 P. M., Auditorium.

Called to order by the President, C. P. Norgord. The minutes of the last meeting were read and adopted, after which the following officers were elected:



PURE BRED GRAIN DISPLAY MADE BY THE ST. CROIX COUNTY ORDER OF THE EXPERIMENT ASSOCIATION AT THEIR ANNUAL MEETING HELD IN CO-OPERATION WITH THE BANKERS MEETING AT NEW RICHMOND, DEC. 16, 1911.

The St. Croix County Order has been a great factor in the growing and dissemination of pure bred seed grains. By holding frequent meetings for the general public information pertaining to better methods of farming and the advisability of banishing scrub grains and scrub cattle has had a marked influence on the agriculture of the entire county.



President C. P. Norgord, Madison.
Vice President William Leonard, Jefferson.
Secretary R. A. Moore, Madison.
Treasurer H. N. Longley, Dousman.

On motion of the Secretary, Professor J. F. Wojta of the Upper Michigan School of Agriculture was made an honorary member of the Experiment Association.

The President appointed the following committee on resolutions:

James B. Cheesman
H. P. West
Chas. T. Lyman.

The selection of a representative to attend to matters relating to the National Corn Association was taken up and on vote, R. A. Moore was unanimously elected.

The following resolutions were reported by the committee and on motion were unanimously adopted.

RESOLUTIONS.

Resolution 1. Completion of the Agronomy Building.

Whereas, "The accommodation of the Agronomy Building, for the enormous amount of work carried on by the various sections of the Department, is quite insufficient to meet its present needs, prompt action should be taken to obtain an early extension of the building on the plans originally drawn.

Be it resolved, That the president and secretary, Professors C. P. Norgord, and R. A. Moore, be instructed to take action to obtain the needed changes immediately.

That a copy of this resolution be sent to each of the members of our Legislature.

Resolution 2. Government Aid for Extension Work.

Whereas, The welfare of this country is primarily dependent upon its agricultural progress, and

Whereas, The Lever Bill now pending in Congress has been provided to further promote the effective agricultural extension work now carried on in the various states, and

Whereas, The aforesaid bill provides for the federal duplication of state appropriations, for such purposes, under conditions as are stated in the bill,

Be it resolved, That the United States' Senators and Congressmen be urged to support such immediate legislation as will secure to us the advantages of this service,

That a copy of this resolution be forwarded to each of our Senators and Representatives in Congress.

Resolution 3. Parcels Post.

Whereas, The efficiency and low cost of transportation in all countries which have experienced the beneficent work of the Parcels Post, is duly recognized;

Therefore be it resolved, That the Wisconsin Agricultural Experiment Association, numbering 1600 paid-up members, representing all parts of the state, gathered at Madison in annual session, desires to go on record as *not favoring the reduction of letter postage to one cent per ounce* at the present time, and in no case, until Congress has enacted a *General Parcel Post Law*.

Resolved, That we respectfully ask and urge upon the present Congress that it no longer delay giving to the people an adequate, up-to-date *General Parcel Post*, one at least as good as that enjoyed by the people of England, Germany, Russia, or China.

Resolved, That the Secretary of this Association be directed to forward a copy of these resolutions to the Senate Committee on Post Offices and Post Roads, Jonathan Bourne, Chairman; also to the Clerk of the Senate and to the Clerk of the House of Representatives; also to each Senator and Representative from the State of Wisconsin.

Resolved further, That the Secretary shall promptly cause to be published in the "Wisconsin Agriculturist," the "Wisconsin Farmer," and the "Wisconsin Equity News," for the information of the members of this Association and our farmers in general, the replies received from our several representatives bearing upon the several points in these resolutions.

TREASURER'S REPORT.

H. N. Longley, treasurer of the association reported on the financial condition of the association. His report showed the receipts from all sources, except state appropriation from January 1, 1911, to January 16, 1912

to be	\$1,028.29
Disbursements covering the same period.....	926.72

Balance in treasury January 16, 1912.....	\$101.57
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R. A. Moore, secretary of the association reported on the use and condition of the state fund. His report showed the total receipts from the state with the balance on hand, from Jan. 1, 1911 to Jan. 3, 1912.....

Disbursements covering the same period	\$3,490.42
	2,546.69

Balance in State Treasury Jan. 3, 1912.....	\$944.73
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We, the undersigned committee, appointed to examine the Treasurer's and Secretary's reports on receipts and disbursements of funds for the past year, beg leave to report that we found them correct.

Signed B. D. LEITH,
L. F. GRABER,
H. E. KREUGER.

Eleventh Annual Meeting, Jan. 26, 27, 1912.

The itemized financial reports are on file for inspection in the office of the Experiment Association.

EXHIBITION OF GRAINS AND FORAGE PLANTS FOR
1912.

One of the attractive and beneficial features of past annual meetings of the Experiment Association have been the competitive display of grains and forage plants. Approximately one thousand dollars in cash and special prizes have been set aside for premiums to be paid annually for the best exhibits of pure bred seed grains and forage plants. The quality of

grains displayed has been of a very high standard and the interest taken in this feature of the meetings is such that the association deems it advisable to continue this line of effort on a much larger scale. Cash and special prizes to the approximate value of twelve hundred dollars will be given to the growers of best seeds at the next annual meeting. A list of special prize offerings will be sent to the members of the association later in the year.

All members of the Association should exhibit seed grains at their county fair, at the State Fair at Milwaukee and also at the Experiment Association Contest. We desire to let farmers and seedsmen far and near know what the members of the association are able to produce.

We feel that through the exhibition of pedigree seed grains much good can be done in the way of encouraging the growing and dissemination of these high yielding grains free from smut and obnoxious weed seeds.

Officers of the county fairs should be seen by individual members of the association and the custom followed in the past of paying premiums on scrub grains should be discouraged. Prizes should be offered by the county fair associations on such varieties of grains and forage plants only as are deserving of encouragement.

The Experiment Association should demonstrate to the seedsmen and farmers of Wisconsin that good seed can be grown within our borders which is acclimated to our home conditions. The seedsmen of our state and of adjoining states will be only too pleased to assist in the dissemination of home grown seeds if they can be shown that the quality is better than they can get elsewhere. Realizing the great improvement that can be accomplished in the growing of farm crops we trust that each member of the association will do all in his power to assist in the production of choice grains and forage plants for our next display.

THE GRAIN EXHIBIT OF THE WISCONSIN AGRICULTURAL EXPERIMENT ASSOCIATION

AT THE SECOND INTERNATIONAL BARLEY SHOW, CHICAGO.

L. F. GRABER, Madison.

Again the Wisconsin Pedigree Barleys have lived up to their old time reputation and have carried off a world's championship and once again the honor has fallen to Hon. H. E. Kreuger of Beaver Dam, Wis.

The second International Barley Show was held in the Coliseum Building, Chicago, Ill., October 12 to 22. The Wisconsin barley growers were on hand with a strong exhibit in competition with barley from all parts of the U. S. and some foreign countries.

Soon after the close of the exhibition the following telegram was received by Prof. R. A. Moore from the Show authorities,

"The pedigree Oderbrucker barley grown by Krueger nineteen eleven took grand prize for six rowed barleys, giving him five prizes, aggregating five hundred and fifty dollars. Wisconsin prizes total eleven hundred and twenty five dollars, distributed among six prize winners."

A list of the prizes awarded to Wisconsin exhibitors are as follows:

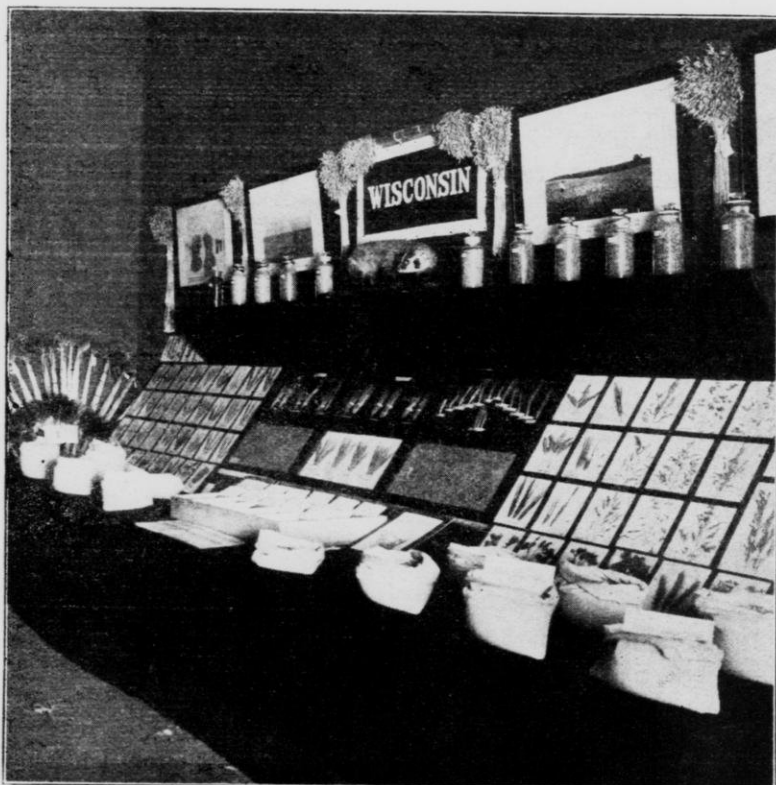
H. E. Kreuger, Beaver Dam. Worlds Championship on best six rowed barley	\$540.00
Louis Groth, Cedarburg, American prize on second best six rowed barley	\$150.00
Albert Meyer, Beaver Dam, Wisconsin prize and special prize on six rowed barley	\$180.00
Malachi Ryan, Kaukauna, Wisconsin prize on six rowed barley	\$120.00
John K. Gebhard, Waukesha, Third special prize for two rowed barleys grown in the Middle Western States	\$75.00
Pabst Brewing Co., Milwaukee, American prize for best two rowed 1910 barleys exhibited.....	\$50.00

Never before were the Wisconsin barleys put through such a severe test.

Sixty pounds of the threshed grain constituted a competitive sample. This of course did away with all possibility of hand picking and other grooming which is commonly a practice, when

small peck samples are entered in a contest. A chemical analysis was made of all samples exhibited and the final awards represented the judgment of sixteen of the best grain experts in the United States.

Aside from the actual competitive exhibits the Experiment Association was allotted about 1200 square feet of floor space



CHICAGO BARLEY SHOW.

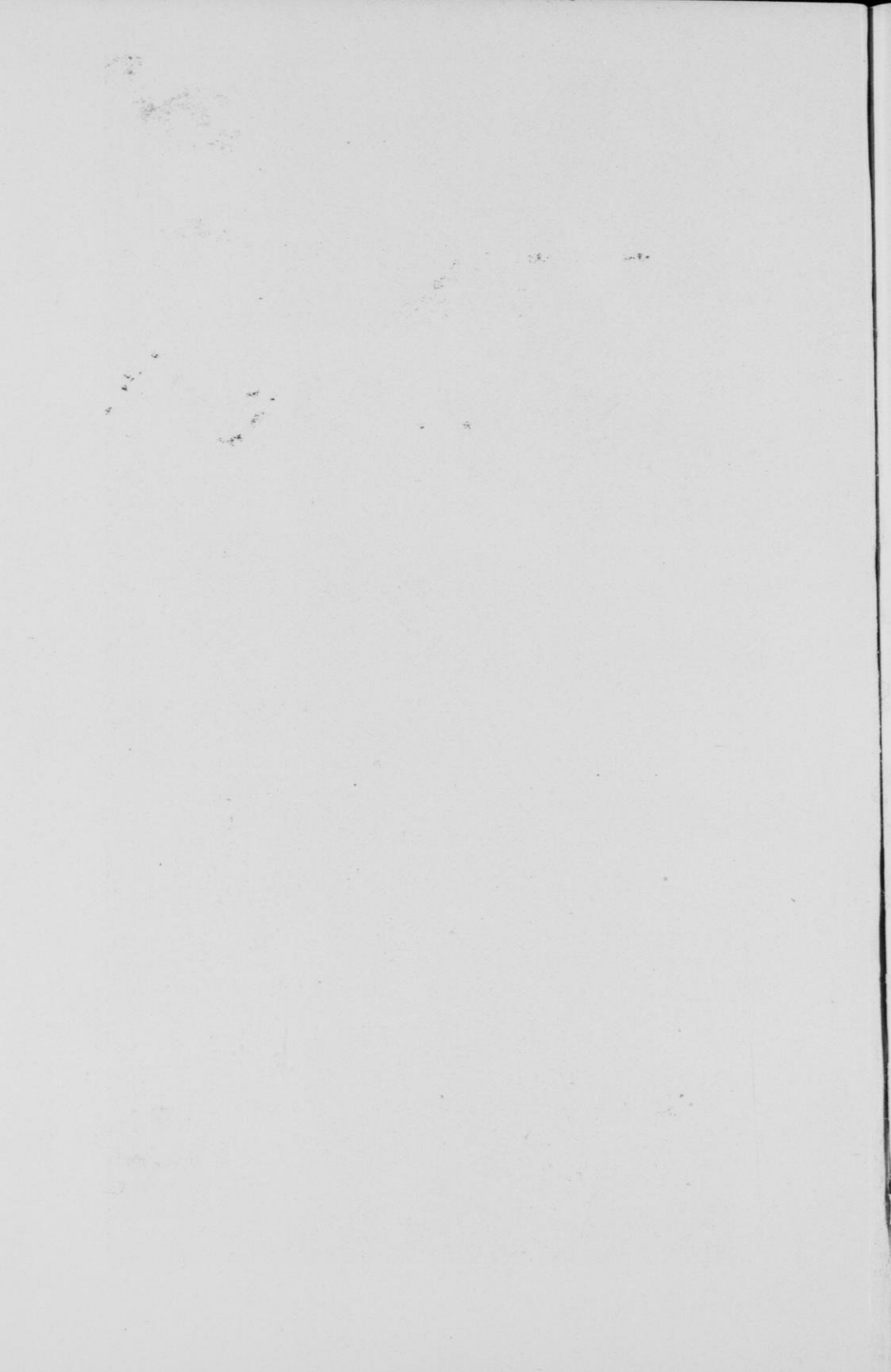
Pedigree Wisconsin Grains in Sacks for Public Inspection

for an educational agricultural display. It is of special interest to note that Wisconsin was the only state, represented by an educational agricultural exhibit. Large crowds daily thronged the Coliseum and the progressiveness of the Wisconsin farmer as illustrated by the beautiful exhibit was reflected on thousands of people from all parts of the U. S. and the world.

The immensity of the show brought together the barley producers as well as the barley consumers, not only from all parts of



THE PURE BRED GRAIN EXHIBIT AT THE 1911 CHICAGO BARLEY SHOW.



the United States but from distant foreign countries. It was therefore highly essential that Wisconsin grains show up to the best advantage.

In the way of national and international advertisement of Wisconsin pure bred grains and particularly Wisconsin pedigree barley, the best of results were secured. The Wisconsin booth was visited by thousands of interested admirers of the exhibit and impression produced not only advertised Wisconsin pure bred grains but the entire state as well. One large malster from Montana gave forth his experience with 3500 bushels of Wisconsin pedigree barley he had purchased for seed purposes two years ago.

“The greatest trouble with barley growing in Montana is the shattering of the heads at harvest time. Our experience with the Wisconsin barley has been, that there was little or no shattering the first year, although in the second generation (year) it begins to shatter considerably, and apparently this increases from year to year. In view of this fact I expect to import a fresh seed supply every two years from Wisconsin. The Wisconsin pedigree barleys are wonderful in their uniformity and yielding powers.”

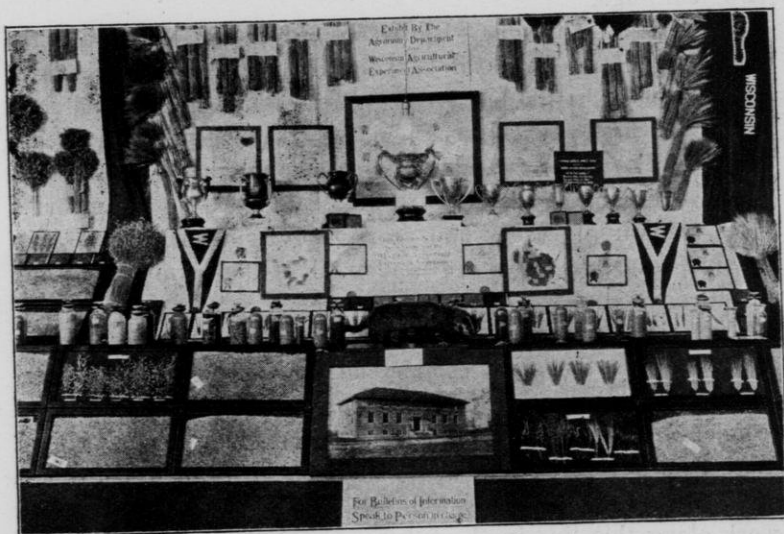
Numerous expressions of this sort are more than encouraging. They indicate the great commercial possibilities of pure bred seed growing in our state, On the whole the exhibit worked wonders in the way of wide advertisement of the true merits of Wisconsin pure bred grains and the economy with which it was arranged (cost to the association less than \$150) justifies further work along this line in the future.

THE JOINT EXHIBIT OF THE WISCONSIN AGRICULTURAL EXPERIMENT ASSOCIATION AND THE AGRONOMY DEPARTMENT

AT THE WISCONSIN STATE FAIR, 1911.

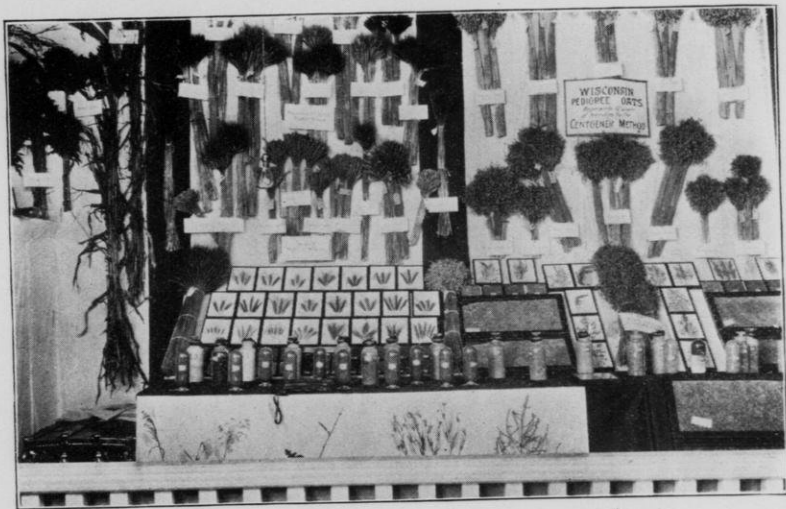
L. F. GRABER, MADISON.

Never before in the history of the Experiment Association and Agronomy Department of the College of Agriculture was there such a carefully prepared and representative exhibit of the co-ordinated agricultural work as that shown at the 1911 State Fair.



Trophies and Medals Won on Pure Bred Wisconsin Grains, a Part of the Exhibit.

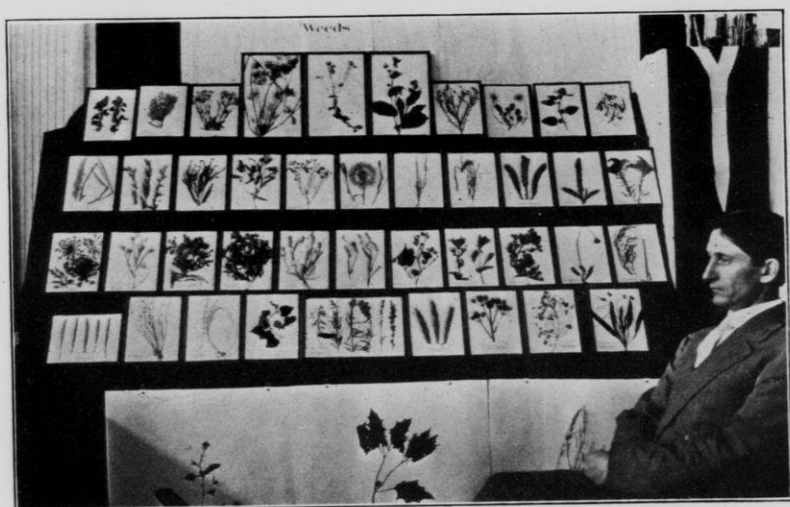
It might well have been criticised as being "a little overdone" that is to say, so extensive as not to be readily comprehended by the spectators—however, from the standpoint of beauty, symmetry and attractiveness it was admired by the most critical. The Experiment Association has had several years of experience in preparing exhibits of grains and forage plants. They have learned that one of the most important essentials of agricultural displays of this nature is careful grouping and systematic arrangement of the various crops. The wall space should be divided into sections each of which will represent a certain crop. For



Wheat and Oats Section of the Exhibit.



General View of 1911 State Fair Exhibit.



The Seed Inspector and the Weed Exhibit.



Corn and Forage Crop Section of the Exhibit.

example, at the 1911 State Fair, the wall space was apportioned for the sheaf and other exhibits of the following crops:—wheat, oats, barley, rye, corn, forage crops, weeds and miscellaneous crops so that the entire exhibit was made up of a combination of separate exhibits of the above crops. This made matters very convenient in accommodating vast crowds which daily thronged the exhibit Building. If a man was interested in corn, he could readily be conducted to the corn section where this matter could be intelligently discussed in the presence of excellent illustrative material.

Another important essential of the successful exhibit is the careful and plain labeling of the various materials exhibited. This was accomplished for the most part by means of 4x6 inch cards carefully printed and attached to the sheaf grains or other parts of the display.

One very attractive feature of the exhibit was a display of trophies and medals won by members of the Wisconsin Agricultural Experiment Association on pure bred grains. It was the means of arousing curiosity and informing the otherwise uninterested public as to reputation and character of the Wisconsin pure bred grains and the extent to which they are being raised from a commercial standpoint.

The exhibit was particularly of an educative character. Hundreds of pressed samples of our common and noxious weeds, correctly named were shown and many farmers were able to identify some weeds they had seen much of but never had learned the correct names. The excellent sheafs of pure bred and pedigreed barley, wheat, oats, rye, etc. called attention to the merits of these grains produced by 7 to 12 years of careful breeding and selection in comparison with the too commonly grown scrub grains without breeding or selection. Charts with interesting tables and other data were objects of study for those interested particularly along agricultural lines.

DIVISION OF FARM CROPS.

PLAN OF WORK FOR THE COMING YEAR.

R. A. MOORE.

The efforts of the Experiment Association for 1912 should be concentrated on the growing and dissemination of the pure bred varieties of corn, oats, wheat, barley and rye. Great demand from all over the country for select pedigree seed grains grown by our association convinces me that the farmers are quick to realize the importance of growing crops from the pure bred seeds instead of continuing the common scrub varieties. The great interest so far obtained for select seed grains can only be maintained by observing strict rules of honest practice.

If for any reason our seed crop should be damaged or contaminated with noxious weed seeds we should at once notify the Secretary and refrain from selling such seed. All seeds of questionable character should be ground and fed on the farm or sold as feed and not listed as seed grains.

Our work in the growing and dissemination of standard varieties of corn for Wisconsin should be continued and pushed with the utmost vigor. No longer should we allow the scoop-shovel method of supplying seed corn, but insist that all seed corn be furnished in the ear and that to be kiln-dried corn. No seedsman can advance a single good argument for not selling seed corn in the ear. Where shelled seed corn is supplied the farmer, the danger of mixing and getting an inferior grade of corn is too great to be safely advocated. The only safe, sure way of preparing seed corn for market is to fire dry it and then store safely in a dry room for shipment. All seed corn should be shipped in the ear for which the grower should receive ample returns for his extra labor. By adhering strictly to the above principle we will be able to throw new life and vigor into the corn plant and lead the world in production per acre.

Our experiments for 1912 are outlined in the Ninth annual report and members of the association will follow these outlines and instructions given therewith. All members experi-

menting will be furnished report blanks in due time for the purpose of reporting the experiments.

Members should bear in mind that whenever an experiment is undertaken the Secretary should have full knowledge of the same so as to be able to compile the data for publication.

In my travels throughout the state, I frequently visit members of the association who are growing and testing seed grains, but do not think it necessary to make a report. The value and importance of the work is lost entirely to others if we neglect so important a duty. In order to be placed on the seed grower's list one must notify the Secretary of the kind and amount of seed, the price per bushel, a pint sample of the seed, and any other data that may be well for the Secretary to know.

The grower of pure bred seed grains should be a business man in the strictest sense and should have business cards and letter heads for business correspondence. These cards and letter heads should be modest, giving the name of the farm, the owner's name, the seed grains grown, and any specialties put in practice upon the farm.

CO-OPERATIVE WORK IN THE DISSEMINATION OF PURE BRED SEED GRAINS.

SEED GRAIN SPECIAL RUN ON THE CHICAGO, MILWAUKEE AND
ST. PAUL LINES.

One of the latest moves in behalf of Agriculture and especially that connected in spreading knowledge regarding pure bred seed grains and best methods of growing and marketing the same is the work carried on by the Experiment Association and the College of Agriculture in coöperation with the Council of American Grain Exchanges. For several years the Milwaukee Chamber of Commerce has manifested a deep interest in the pure bred seed grain work of the College and has assisted by offering beautiful silver trophies in the annual grain contests of the Wisconsin Experiment Association. Their assistance has materially aided in the good work.

Last year the work took on a wider scope and the American Grain Exchanges assisted in the dissemination of pure bred seed grains and also in the general information relating to the latest improved methods of growing and marketing the same. Through this assistance members of the Experiment Association found ready sale for all their pedigree seed grains and thus the pure bred seeds found their way over a wide area of country.

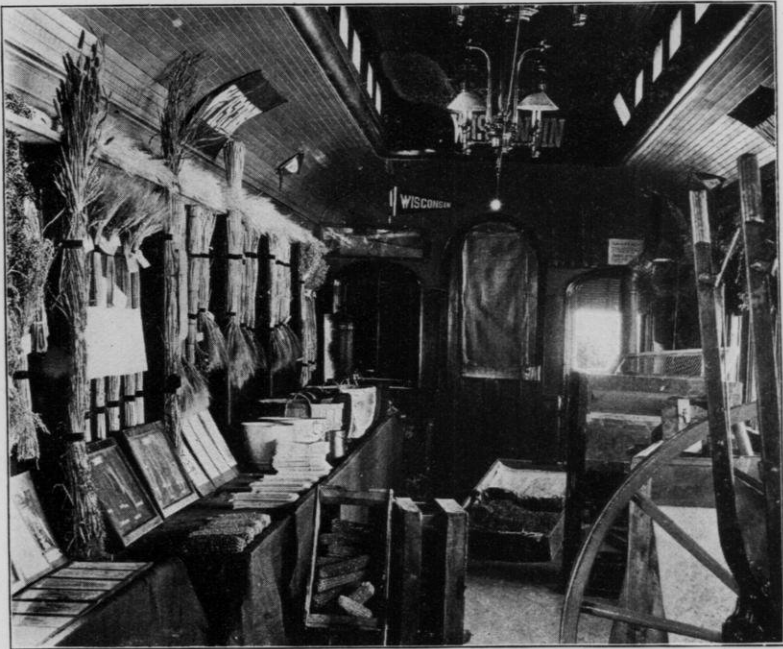


CROP IMPROVEMENT CAR READY TO START ON ITS PURE BRED SEED GRAIN MISSION.

A pure bred seed demonstration car was run through southern and central Wisconsin. The car was fitted out with all the latest appliances for testing, grading and sowing grains and grasses. Treating the grains for prevention of smut and other diseases was emphasized; and bulletins giving information on all phases of growing grains and forage plants were given to the public. The Demonstration car was out for two weeks and made ten counties. Day and evening meetings were held at the county seats of the counties visited and the pupils of the public schools with their teachers and friends had an opportunity to visit the car each day and learn of the work of growing and disseminating pure bred seed grains. County Orders



INTERIOR VIEWS OF CAR SHOWING PEDIGREE BARLEY, WHEAT,
OATS, CORN AND RYE.





of the Experiment Association were organized in those counties passed through where they did not already exist and thus a permanent organization was left to emphasize and carry on the good work for years to come. In many ways the meetings held in connection with the pure bred seed trip rank among the most successful agricultural meetings held in the state. The work will be continued the coming fall and winter and people in other counties be accorded the same opportunity of learning the good message of pure bred seeds.

We are living in an age of seed grain improvement and our utmost endeavors should be to cooperate and lend a helping hand in banishing scrub seeds forever from our country and in their place emphasize high yielding pedigree seeds that through tests have proven their worth both to quality and yield.

NUMBER OF PLACES VISITED AND ACTUAL NUMBER OF FARMERS
IN ATTENDANCE AT THE MEETINGS.

Jan. 15. Platteville	125
Jan. 16. Darlington*	120
Jan. 17. Brodhead*	100
Jan. 18. Janesville*	100
Jan. 19. Elkhorn*	200
Jan. 20. Waukesha*	150
Jan. 22. Fond du Lac	150
Jan. 23. Beaver Dam	200
Jan. 24. Watertown	200
Jan. 25. Richland Center	250
Total number in attendance.....	1,595

*Places where County Orders of the Experiment Association were formed.

SUPPLEMENT TO TENTH ANNUAL REPORT

OF THE

Wisconsin Agricultural Experiment
Association

FOR THE YEAR 1912

List of members and premiums awarded at the Annual Pure Bred Grain
Show held at Madison, Friday and Saturday, January
26 and 27, 1912

R. A. MOORE, SECRETARY,
Madison, Wisconsin.



MADISON, WIS.
DEMOCRAT PRINTING COMPANY, STATE PRINTER
1912



SUPPLEMENT TO TENTH ANNUAL REPORT

OF THE

**Wisconsin Agricultural Experiment
Association**

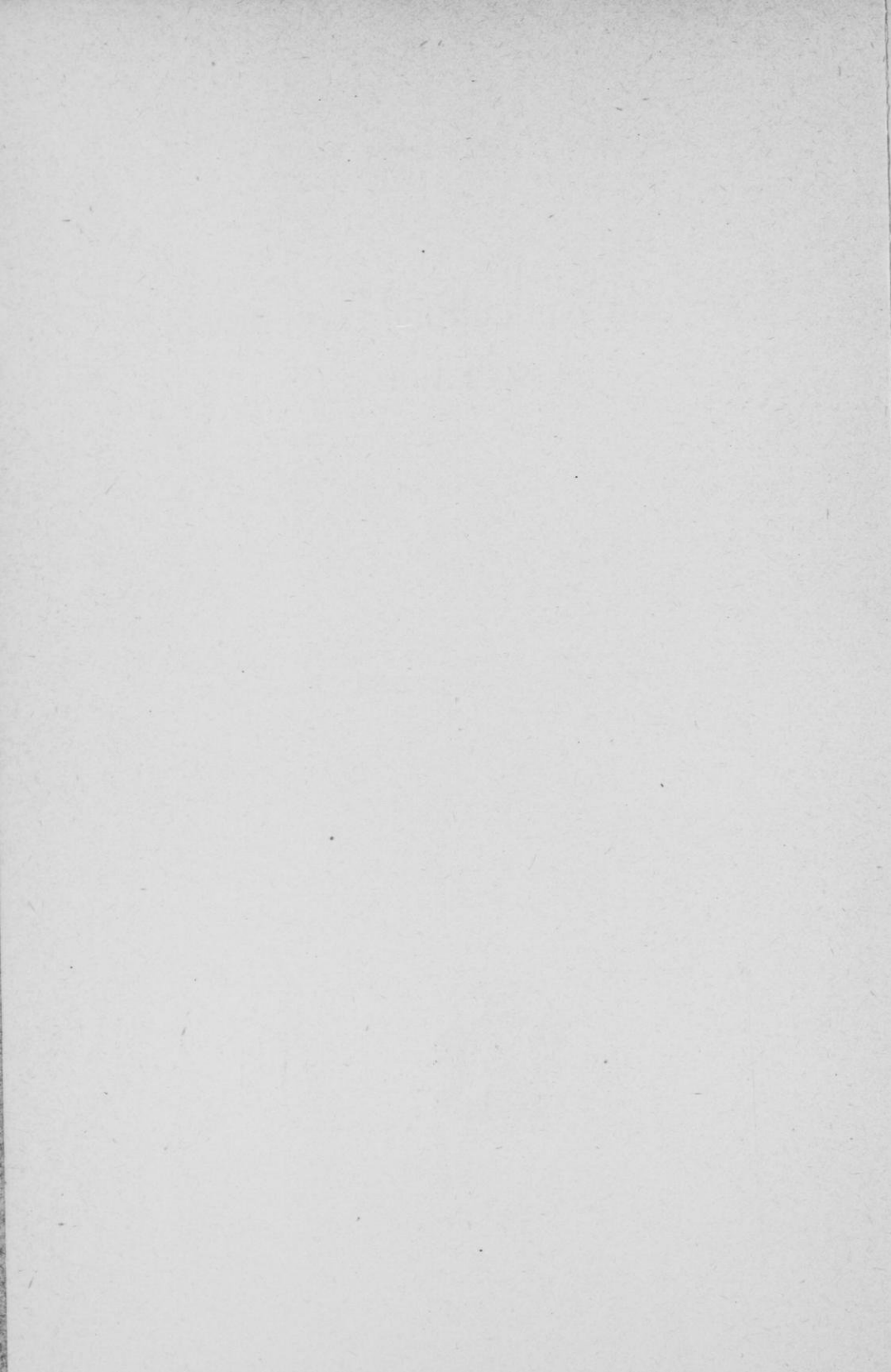
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MEMBERSHIP

Wisconsin Agricultural Experiment Association.

HONORARY MEMBERS.

Ames, W. L.....Oregon	McKerrow, Supt. Geo.....Pewaukee
Babcock, Dr. S. M.....Madison	Newman, Geo.Mobile, Alabama
Bull, Prof. C. P...St. Anthony Park, Minn.	Philips, A. J.....West Salem
Cary, Prof. C. P.....Madison	Renk, Katharine,...Boise City, Idaho
Cheesman, Jas. B.....Racine	Russell, Dr. H. L.....Madison
Emery, Prof. J. Q.....Madison	Schauer, Hon. A. G.....Kewaunee
Hays, W. M., Ass't Secretary Agr... Washington, D. C.	Toole, William.....Baraboo
Henry, Dr. W. A.....Madison	True, Hon. John M.....Madison
Karel, Hon. L. A.....Kewaunee	Utsunomiya, S. T. Sapporo, Hokkaido, Japan
Lehmann, Mrs. Eva.....Woodland	Utter Delbert.....Lake Beulah
McCormick, G. W....Menominee, Mich.	Wojta, Prof. J. F....Menominee, Mich.

ANNUAL MEMBERSHIP.

ADAMS COUNTY.

Buckley, Lawrence.....Kilbourn
Cook, Earl.....Plainville
Elliott, David P.....Westfield
Heitman, Carl J.....Plainville
Jacobs, A. F.....Coloma
Jarosh, Ben J.....Westfield
Johnson, Billie.....Strongs Prairie
Mikkleson, W. J.....Arkdale
Peck, Walter.....Coloma

ASHLAND COUNTY.

Delwiche, E. J.....Ashland
Johnson, L. M.....Ashland

BARRON COUNTY.

Bartlett, Ray W.....Barron
Borgan, S. L.....Dallas
Jorstad, Ed.....Cameron
Nordby, Edw.....Barron

Olson, Nalvin A.....Chetek
Otterholt, Henry.....Chetek
Plenty, Robt. J.....Rice Lake
Rauchenstein, John.....Rice Lake
Svacina, Jacob, Jr.....Rice Lake

BAYFIELD COUNTY.

Fleck, L. H.....Benoit
Morey, ReubenCable
Nelson, John A.....Port Wing
Pease, F. E., Jr.....Cable
Yderstad, Thoralf.....Mason

BROWN COUNTY.

Anderson, Alfred M.....Denmark
Anderson, Solomon,..Green Bay, RFD 8
Craaenen, Jacob.....Green Bay
Dillon, James H.....De Pere
Dillon, Austin.....De Pere
Eskil, Odin.....Green Bay

ANNUAL MEMBERSHIP—continued.

Haevers, Martin..Luxembourg,RFD 4
 Kersten, L. M.....De Pere
 Nies, Peter.....Greenleaf
 Roffers, John H.....Green Bay
 Schmidt, Arthur.....De Pere
 Sevars, Geo. W.....Green Bay

BUFFALO COUNTY.

Bilderback, W. T.....Mondovi
 Engel, Geo. H.....Fountain City
 Engel, Geo.....Fountain City
 Fetting, Elmer.....Cochrane
 Fetting, Romeo.....Cochrane
 Fried, Wm. J.....Fountain City
 Haigh, Richard.....Cream
 Hitt, Oscar A.....Alma
 Hoksch, Ed.....Cream, R. 1
 Jahn, Chas.....Cream
 Joos, Krank.....Fountain City
 Kaste, Alfred H.....Cream
 Kaste, Chas. H.....Cream
 Kaste, Arthur H.....Alma
 Kennedy, Larry J.....Nelson
 Kennedy, Bernard.....Nelson
 Kennedy, P. H.....Nelson
 Kindschy, E. R.....Waumandee
 Linse, Edward.....Mondovi
 Loesel, Wm.....Cream
 Loesel, John.....Cream
 Muchleisen, Gottlieb.....Alma, RFD 2
 Pattison, H. A.....Durand
 Reinhardt, R. F.....Nelson
 Rosenow, Irvin A.....Waumandee
 Suhr, Otto A.....Cochrane
 Suhr, Adolph A.....Cochrane
 Walters, Herman.....Alma
 Wendt, Reinhold.....Cream
 Whelan, John.....Mondovi
 Wilks, H. F.....Alma

BURNETT COUNTY.

Barge, Wm. R.....Grantsburg
 Olson, A. H.....Grantsburg
 Rylander, Frank.....Shell Lake

CALUMET COUNTY.

Bittner, Robert.....Chilton
 Christoph, Theo. F.....Chilton
 Koehler, John P.....Hayton
 Lutz, Edw.....Appleton, RFD 8
 Paulson, Alfred.....New Holstein
 Pelk, A. C.....Chilton
 Peterson, Hy. N.....New Holstein
 Sevenich, Tony.....Hilbert

Veers, Ernest.....New Holstein
 Weber, Clifford.....New Holstein
 Welker, Peter.....New Holstein
 Welker, Leonard.....New Holstein
 Wipperman, Wm.....Chilton
 Wolf, Jacob.....New Holstein

CHIPPEWA COUNTY.

Brunstad, Palmer.....Bloomer
 Brunstad, Adolph.....Chippewa Falls
 Cherrier, Percy.....Chippewa Falls,
 503 Greenville St.
 Christiansen, W. O.....Chippewa Falls
 Cotton, Bert G.....Chippewa Falls
 Cotton, J. L.....Chippewa Falls
 Hebert, Raymond.....Chippewa Falls
 Hendry, Robt. D.....Chippewa Falls
 Kramer, H. F.....Bloomer
 Lebeis, Frank J.....Bloomer
 Martiny, L. P.....Chippewa Falls
 Schell, Gustav, Mrs.....Jim Falls
 Schield, John.....Chippewa Falls
 Schroeder, Herman F.....Jim Falls
 Siepert, F. W.....Chippewa Falls
 Thorpe, Henry O.....Stanley

CLARK COUNTY.

Baehr, Charles.....Withee
 Daellenbach, Chris.....Abbotsford
 Einfeldt, Albert.....Greenwood
 Frane, Victor.....Colby
 Naedler, Edw.....Neillsville
 Nelson, Carl.....Greenwood
 Rued, Axel.....Curtiss
 Steinwand, Theo.....Colby
 Sorenson, John.....Greenwood, RFD 4
 Umlauf, Rudolph.....Dorchester
 Vaughan, John M.....Unity
 Zerbel, Paul.....Humbird

COLUMBIA COUNTY.

Anderson, A. W.....Portage
 Anderson, Edwin.....Morrisonville
 Bancroft, Benj. T.....Rio
 Bradley, Roy.....Randolph
 Carncross, J. E.....Okee
 Chrisler, Elvin.....Lodi
 Chrisler, Harley.....Lodi
 Chrisler, Elmer.....Lodi
 Church, W. H.....Lodi
 Coulter, Harry.....Randolph
 Ellickson, A. C.....Arlington
 Gasse, Clarence C.....Lodi
 Gloeckler, L. P.....Portage

ANNUAL MEMBERSHIP—continued.

Lee, C. A.....Deerfield	Tenjum, A. A.....De Forest
Lee, P. A. G.....Deerfield	Thielke, Emil.....Madison
Lee, Ben A., Madison, 1243 E. Dayton	Thibodeau, Elmer.....Madison
Lein, L. O., Sr.Cambridge	Thompson, Melvin.....Mt. Horeb
Leith, B. D.....Madison	Tjugum, Chas.....Sun Prairie
Libby, John L.....Madison, R. F. D. 4	Toepfer, Otto.....Madison, R. F. D.
Lyman, Chas. A.....Sun Prairie	Weaver, Everett.....Madison
McConnell, Orin S.....Cottage Grove	Wernich, Wm. H.....De Forest
Messerschmidt, S. H.	Whiting, Earl.....Cottage Grove
Madison, R. F. D. No. 1	Wingem, Andrew.....Sun Prairie
Middleton, Geo. W.	Woelffer, Herbert.....Waterloo
Madison, R. F. D. No. 7	Wolkoff, S. G., Madison, 2223 Keyes Ave.
Mielke, F. D.....Basco	Woodward, John.....Madison, R. 1
Mielke, J. E.....Basco	Zerbel, L. R.....Madison
Mitchell, Geo. T.....Cottage Grove	
Mitchell, J. T.....Cottage Grove	
Moore, Harry G.....McFarland	
Moore, R. A.....Madison	
Morgan, Henry H.....Madison	
Nellen, P. J.....De Forest	
Nellen, J.....De Forest	
Nellen, W. A.....De Forest	
Netseler, Otto.....Deerfield	
Newton, H. B.	
Madison, 1030 Emerald St.	
Nieman, Fred.....Madison, R. No. 6	
Nilson, Oscar L.....Cambridge	
Nordlie, C. K.....Rockdale	
Nordness, Jens.....Verona	
Norgord, C. P.....Madison	
Norsman, Jerome.....Madison	
Noyce, Elmer.....Oregon	
Ohnstad, K. O.....Stoughton	
Opstedal, A. J.....De Forest	
Patterson, Harley, J.....Mc Farland	
Rademacher, John.....Middleton	
Reindahl, A. K.....Madison	
Remy, Hubert.....Belleville	
Renk, Wm. F.....Sun Prairie	
Rorge, A. J.....Stoughton	
Ruhrmann, B. J.....Cross Plains	
Ruste, C. E.....Blue Mounds	
Riste, C. O.....Blue Mounds	
Ryan, Gerald.....Sun Prairie	
Schneider, G. P.....Oregon	
Sersted, Alfred, Madison, 632 E. Mifflin	
Skolas, Herman.....Deerfield	
Smithback, L. E.....Cambridge	
Smithback, M. E.....Cambridge	
Sprecher, Frank.....Burke	
Stubley, Fred.....Black Earth	
Stolen, Knute H.....Mt. Horeb	
Stewart, Geo. L.....Dane	
Stone, A. L.....Madison	
Swanton, Ray F.....Madison	
	Adams, Alvin W.....Lowell
	Adams, Lester B.....Lowell
	Baird, Bert.....Fox Lake
	Barstow, A. T.....Randolph
	Barstow, Jas. E.....Randolph
	Becker, Herbert H.....Juneau, R. No. 2
	Beule, E. A.....Beaver Dam
	Block, A. F.....Lomira
	Bohl, Anton.....Beaver Dam
	Bremer, E. O.....Hustisford
	Bush, C. W.....Waupun
	Bussewitz, W. E.....Juneau
	Bussewitz, D. J.....Juneau
	Bussewitz, Ray.....Reeseville
	Craig, Charles W.....Oconomowoc
	Curphey, John R.....Ixonia
	Fehling, Edgar O.....Juneau
	Foetsch, A. A.....Juneau
	Grebe, Fred F.....Fox Lake
	Gunderson, Forrest.....Oconomowoc
	Gunderson, Leo.....Oconomowoc
	Henke, Louis A.....Lowell
	Hoard, H. H. Jr.....Waupun
	Hoselen, Edwin.....Waterloo
	Howitt, Chas. H.....Randolph
	Hughes, Daniel J.....Columbus
	Hutchinson, Wm. D.....Rubicon
	Indermuehle, Felix A.....Beaver Dam
	Joice, Geo.....Waterloo
	Jones, J. G.....Beaver Dam
	Jones, Arthur.....Randolph
	Jones, Owen R.....Beaver Dam
	Jung, J. W.....Randolph
	Kreug, H. E.....Beaver Dam
	Kreuger, Alexander.....Watertown
	Kuhlman, Arthur.....Lowell
	Kuhlman, Fred.....Lowell
	Lehmann, Theo...Watertown, R. No. 1

DODGE COUNTY

ANNUAL MEMBERSHIP—continued.

Mahoney, David.....Juneau
 Marten, Erwin.....Knowles
 Marthaler, H. E.....Beaver Dam
 Miller, A. H.....Waupun

DOOR COUNTY.

Dreutzer, C. B.....Sturgeon Bay
 Larson, Eli.....Sawyer
 McKernan, Robt.,.....Sturgeon Bay, R. 1
 Pfleck, Jno. W.....Baileys Harbor
 Zirbel, Fred.....Forestville

DOUGLAS COUNTY.

Webb, W. H.....Superior

DUNN COUNTY.

Cramer, Joe.....Menomonee, R. 16
 Gehrking, Fred J.....Elk Mound
 Jacobs, E. C.....Elk Mound
 Kent, J. S.....Rusk
 Kent, H. W.....Rusk
 Kinney, O. G.....Colfax
 Schlough, Roy.....Wheeler
 Stevens, Ernest A.....Eau Galle
 Vorland, Geo. T.....Colfax

EAU CLAIRE COUNTY.

Allen, C. L.....Eau Claire
 Arries, B. M.....Augusta
 Bandoli, M. A.....Eau Claire
 Bullis, C. B.....Eau Claire
 Burce, Ruth.....Eau Claire
 Carlson, A. F.....Augusta
 Donaldson, H. A.....Eau Claire
 Faast, Ben.....Eau Claire
 Gullickson, O. H.....Eau Claire
 Hanson, Warner.....Eau Claire
 Hulbert, J. H.....Augusta
 Koll, C. A.....Eau Claire
 Loether, E. J.....Eau Claire, 411 Eddy St.

Mayo, John H., Jr.....Eau Claire
 Mayo, Geo L.....Eau Claire
 McDermid, G. A.....Eau Claire
 Newhouse, Chas.....Augusta
 Pederson, Peter.....Eleva
 Pierce, Marshall A.....Fall Creek
 Rebensdorf, Fred J.....Fairchild
 Russell, A. C.....Augusta
 Thompson, Ingvald.....Eleva
 Wethern, Floyd.....Eau Claire
 Wright, W. C.....Eau Claire
 Works, O.....Augusta

FLORENCE COUNTY.

Bergsten, Emil F.....Florence
 Dennis, Bob.....Florence
 Neuberger, Wm. S.....Reeseville
 Owens, H. C.....Fox Lake
 Ownes, Wm. E.....Fox Lake
 Randall, S. M.....Waupun
 Rex, Edgar.....Beaver Dam
 Roberts, W. E.....Randolph
 Rockhill, W. E.....Waupun
 Ruesink, H. G.....Waupun
 Schiller, Claude.....Beaver Dam
 Schrop, Roland.....Juneau
 Schumann, Hugo W.....Beaver Dam
 Steiner, W. H.....Brownsville
 Summicht, Allen W.....Juneau
 Summicht, Anton.....Juneau
 Voigt, Fred.....Lomira
 Voigt, Wm. C.....Lomira
 Voigt, Alvin.....Oconomowoc
 Waterworth, W. A.....Randolph
 Young, Ralph T.....Burnett Jct.

FOND DU LAC COUNTY

Adams, Richard F.....Campbellsport
 Adams, A. E.....Eden
 Atwood, Berry W.....Waupun
 Belke, Walter.....Fairwater
 Bonzelet, J. P.....Eden
 Boyd, R. A.....Oakfield
 Briggs, E. T.....Fond du Lac
 Buchner, John C.....Campbellsport
 Dickman, Ed.....Brandon
 Dickinson, A. R.....Fond du Lac
 Donovan, Frank.....Van Dyne
 Finder, Fred C.....Van Dyne
 Gibbard, P. J.....Ripon
 Hargrave, Robt.....Ripon
 Hayes, Carl I.....Campbellsport
 Hendricks, J. H.....Campbellsport
 Hendricks, L. E.....Campbellsport
 Hills, Lucien H.....Waupun
 Hintz, Geo. E.....Oakfield
 Horner, G. B.....Ripon
 Jones, Everett W.....Brandon
 Kuehn, Chas A.....Brandon
 Lehman, Edwin.....Ripon
 Leith, Ray H.....Van Dyne
 Maug, A. J.....Ripon
 Meekin, H. W.....Fond du Lac
 Meier, Edw. F.....Eden, R. No. 36
 Michels, Henry.....Malone
 Miller, John.....Ripon, 911 Watson St.
 Miritz, O. F.....Fond du Lac

ANNUAL MEMBERSHIP—continued.

Swenson, Walter.....Hollandale
 Swenson, Olin.....Hollandale
 Thomas, Willie.....Ridgeway

JACKSON COUNTY.

Anderson, Ubbe.....North Bend
 Bullock, James P.....North Bend
 Dettinger, Wm. T.....Hixton
 Dietrich, John J.....Black River Falls
 Duxberg, Leland.....Hixton
 Engleman, John.....Hixton
 Gearing, Frank.....Black River Falls
 Haag, Frank.....Melrose
 Haag, Henry.....Melrose
 Jennings, Roy.....Hixton
 Lambert, Edward.....Taylor
 Lane, Orie J.....Hixton
 McNab, A. J.....Black River Falls
 Merrill, Waldo M.....Taylor
 Olsen, Anson D.....Black River Falls
 Patterson, Harvey.....Melrose
 Patterson, John D.....Melrose
 Peterson, Carl M.....Black River Falls
 Ristow, Chas.....Black River Falls
 Rustad, Ludvig.....Black River Falls
 Smith, E. J.....Taylor
 Thompson, Adolph H. Black River Falls
 Thomas, Frank.....Black River Falls
 Tibbetts, Wm.....Melrose
 Wallen, Aron.....Taylor

JEFFERSON COUNTY.

Anthes, Henry.....Jefferson
 Brown, Abott.....Waterloo
 Brueckner, Justus.....Jefferson
 Brueckner, Leo.....Jefferson
 Brueckner, H. C.....Jefferson
 Crosman, Arthur W.....Lake Mills
 Emmert, H. L.....Johnson Creek
 Emmert, O. J.....Johnson Creek
 Graper, Arthur.....Helenville
 Graper, Edwin J.....Helenville
 Guttenberg, Frank. Jefferson, R. No. 1
 Hans, Joe.....Jefferson
 Kasilke, Arthur B.....Lake Mills
 Kracht, R. E.....Jefferson
 Lean, Geo. A.....Palmyra
 Leonard, Geo. H.....Jefferson
 Lecnard, Wm. R.....Jefferson
 Linton, Gilbert.....Fort Atkinson
 Longley, H. N.....Dousman
 McIntyre, Ivan M.....Fort Atkinson
 McIntyre, C. W.....Fort Atkinson
 Mathews, Milton D.....Helenville

Niere, Stuart.....Watertown
 Parsons, Wm. A.....Fort Atkinson
 Poppe, Arthur D.....Jefferson
 Rabenhorst, B. W.....Jefferson
 Sayre, Chas. N.....Jefferson, R. No. 5
 Stear, F. S.....Fort Atkinson
 Ward, Theo. S.....Fort Atkinson
 Ward, Chas. E.....Fort Atkinson
 Ward, Robt. W.....Fort Atkinson
 Wendt, A. L.....Lake Mills
 Whiting, F. H.....Lake Mills

JUNEAU COUNTY.

Bailey, Earl.....Elroy
 Bentson, Arthur.....Elroy
 Frederickkson, Ed.....Necedah
 Hansen, Harry.....Camp Douglas
 Macomber, Stephen D.....New Lisbon
 Mead, R. E.....New Lisbon
 Moore, Henry G.....Mauston
 Niles, Milo E.....Mauston
 Remington, Merl O.....Mauston
 Schultz, Arthur.....Mauston
 Wagner, J. M.....Union Center

KENOSHA COUNTY.

Beimer, Geo.....Salem
 Betzer, Raymond.....Kenosha
 Bradley, Frank.....Somers
 Crophey, W. R.....Kenosha
 Curtiss, W. R.....Trevor
 Dexter, Walter S.....Kenosha
 Holt, Edw. L.....Pleasant Prairie
 Kreuscher, Wm. R.....Somers
 Myrick, M. O.....Bristol
 Orvis, L. C.....Salem
 Paddock, Alvin D.....Salem
 Paddock, A.....Salem
 Paddock, Ray M.....Salem
 Roberts, F. W.....Woodsworth
 Sheen, Wray.....Trevor
 Swenson, Earl E.....Trevor
 Thiers, L. M.....Kenosha

KEWAUNEE COUNTY.

Boudnick, John.....Kewaunee
 Cherveney, Wenzel, ..Kewaunee, R. N. 2
 Collin, D. W.....Luxemberg
 Glandt, R. C.....Kewaunee
 Katel, W. C.....Kewaunee
 Kassner, Edw.....Kewaunee, R. No. 6
 Koller, Wm.....Kewaunee, R. No. 2
 Krofta, Rudolph...Kewaunee, R. No. 2
 Mack, John J.....Algoma, R. No. 1

ANNUAL MEMBERSHIP—continued.

Nemetz, Frank J.....Kewaunee
 Felisek, Frank W.....Kewaunee
 Ripley, Jos. W.....Kewaunee, R. No. 6
 Rohde, Henry W...Kewaunee, R. No. 1
 Runke, Henry.....Algoma
 Schmidt, Wm.....Algoma
 Stangel, Richard...Kewaunee, R. No. 1
 Waegli, J. A., Jr.....Kewaunee
 Zahorick, A. J.....Kewaunee

LA CROSSE COUNTY.

Bosshard, Eugene.....Bangor
 Davis, L. H.....Bangor
 Dengel, Peter.....La Crosse, R. No. 1
 Frehoff, R. E.....Coon Valley
 Freehoff, W. A.....Coon Valley
 Griswold, H. W.....West Salem
 Hemker, Fred H.....West Salem
 Hoeth, Geo.....La Crosse, R. No. 1
 Jones, E. E.....Rockland
 Kinservik, O. T.....La Crosse
 Lawrence, F. W.....Bangor
 Lemke, L. C.....Onalaska
 Lovejoy, Hiram.....West Salem
 Markle, S. P.....La Crosse
 Moos, William.....Onalaska
 Moos, Carl.....Onalaska
 Nuttleman, Alfred.....West Salem
 Nuttleman, Fred.....West Salem
 Quall, Oscar P.....Midway
 Ristow, Harry.....Onalaska
 Sandman, W. D.....Holmen
 Schaller, Frank G.....Holmen
 Schaller, Geo. W.....Holmen
 Schilling, H. W.....Onalaska
 Van Loon, John.....La Crosse
 Westerhouse, John.....Onalaska
 Westerhouse, Garrett.....Onalaska
 Whitehead, H. W.....Rockland
 Whitbeck Wesley.....Onalaska
 Wielinga, Jippa.....Midway

LA FAYETTE COUNTY.

Andrews, A. L.....South Wayne
 Glindinning, H. L.....Shullsburg
 Ingwell, Albert.....Blanchardville
 Larson, C. O.....Woodford, R. No. 1
 Perry, W. H.....Gratiot
 Rood, O. C.....South Wayne
 Rood, M.....South Wayne
 Rood, H. J. C.....South Wayne
 Smith, Alva J.....Gratiot
 Watrud, H. O.....Blanchardville

LANGLADE COUNTY.

Fellstad, Anton.....Elcho
 Johnson, Geo. R.....Antigo
 Leykom, Wallace J.....Antigo
 Persen, Alfred.....Bryant
 Schwartz, John.....Antigo

LINCOLN COUNTY.

Haas, Julius.....Merrill
 Farrot, Geo.....Merrill

MANITOWOC COUNTY.

Arnold, Arthur A.....Kiel
 Axley, Walter.....Cleveland
 Bauer, Adolph H.....Manitowoc
 Bender, Fred.....Cleveland, R. No. 1
 Berge, Otis I.....Valders
 Bruhn, John F.....Two Rivers
 Clusen, Reinhold.....Manitowoc
 Dvorak, Henry.....Mishicot
 Eggert, Gust.....Two Rivers
 Eisemann, Harvey.....Mishicot
 Geraldson, M. E. G.....Manitowoc
 Gustaveson, Chas., Manitowoc, R. No. 4
 Heidemann, O. C.,.....Kiel, R. No. 2
 Hetzel, Gilbert J.....Cleveland
 Heyroth, Alvin A.....Mishicot
 Hoefner, Herbert, Manitowoc, R. No. 1
 Kings, Benj.,Reedsville
 Kirby, Jas.....Grimms
 Klann, Adolph.....Reedsville
 Klessig, Edwin O.....Cleveland
 Koellmer, Gust.....Cleveland
 Knutson, Ed., A., Manitowoc, R. No. 4
 Larson, John A.....Valders
 Lutze, Geo.....Cleveland
 Meyers, L. J.....Whitlaw
 Moldenhauer, W. C. Manitowoc, R. No. 1
 Nate, Geo. B.....Grimms
 Pritzl, John A.....Cato
 Reddin, Thos. E.....Cato
 Riederer, Blasius.....Cato
 Roethel, Herman.....Kiel
 Schuster, Chas. J.....Manitowoc
 Strowig, Wm. A.....Cleveland
 Sullivan, Jas. A.....Manitowoc
 Thielke, Ed.....Kiel
 Thompson, Geo. H.....Quarry
 Tyler, Jas. G.....Valders
 Wehrwein, Walter Manitowoc, R. No. 2
 Wesener, Wm.....Cleveland
 Wilkowske, Hugo.....Mishicot
 Wiegand, O. R.....Cleveland
 Wieting, Edwin H.....Kiel

ANNUAL MEMBERSHIP—continued.

MARATHON COUNTY.

Aderhold, H. F.....Athens
 Arnold, Phil J.....Edgar
 Baesemann, Otto.....Edgar
 Heinke, A. E.....Stratford
 Helmke, Theo. J.....Hamburg
 McAdam, Cecil.....Schofield
 Parsch, Gustav A.....Wausau
 Van Vuren, Cornelius.....Ringle

MARINETTE COUNTY.

Bancroft, A. G.....Peshtigo
 Mickelson, A. W.....Walsh
 Ramsay, A. C.....Peshtigo
 Ramsay, R. C.....Peshtigo

MARQUETTE COUNTY.

Hamilton, T. C.....Westfield
 Haskins, Leon O.....Montello
 Houslet, Neal.....Oxford
 Hull, Benjamin L.....Montello

MILWAUKEE COUNTY.

Babcock, Chas. L.....Milwaukee
 Baden, L. J. Milwaukee 1088 10th St.
 Bartlett, Mrs. Geo.
 Milwaukee, 573 Maryland Ave.
 Basse, Wm. H.....West Allis
 Bernhardt, Chas. R.....Hales Corners
 Brown, R. H.
 Milwaukee, 4624 Grand Ave.
 Danforth, Willie

Milwaukee, 487 Cass St.
 Dufenhorst, A. E.....West Allis
 Duve, Henry F.....West Allis, R. No. 5
 Guenther, Nelson.....South Milwaukee
 Kiemer, P. H.

Milwaukee, 679 Marshall St.
 Kurtze, Otto C.....West Allis, R. No. 4
 Liebenthal, E. J.....West Allis
 Loewe, Arthur, 2438 Chestnut St.,
 Milwaukee

Milwaukee, West Allis
 Machimura, K.....West Allis
 Marti, Herman.....Milwaukee, R. No. 2
 Meyer, Alfred J.....Oakwood
 Nicholas, Chas.....Cudahy
 Palmershein, Martin.....West Allis
 Pierner, Fred.....No. Milwaukee
 Pierner, John W.....Thiensville
 Roscher, Edwin

Milwaukee, 422 West 24th St.
 Schwerman, Chas.....Milwaukee, R. No. 3
 Swan, N. J.....Wauwatosa

Unger, Edw.,No. Milwaukee
 Unger, Ernest F.....No Milwaukee
 Usinger, Fred Jr.,
 Milwaukee, 302 3rd St.
 Zimmerman, Henry N.
 Wauwatosa, R. No. 14

MONROE COUNTY.

Aarness, O. C.....Cashton
 Anderley, Louis.....Kendall
 Brokopp, Ernest.....Kendall
 Ebert, F. E.....Tomah
 Errickson, Henry N.....Cashton
 Foth, Frank D.....Norwalk
 Foth, E. A.....Norwalk
 Freeman, Geo. A.....Sparta
 Harris, R. E.....Warrens
 Hitchcock, Wm. P.....Sparta
 Hubbard, E. C.....Norwalk
 Hubbard, W. E.....Norwalk
 Jones, E. F.....Sparta
 Kirst, Alfred E.....Tomah
 Kirst, Ernest.....Tomah
 Kirst, Arthur L.....Tomah
 Leverich, J. W.....Sparta
 Mistele, Wm. O.....Kendall
 Nathen, Paul R.....Kendall
 Robertson, Donald.....Tomah
 Roth, John.....Elroy
 Van Zandt, Lynn C.....Sparta
 Vieth, Otto.....Norwalk
 White, Edward.....Kendall

OCONTO COUNTY.

Anderson, Dewey, Mountain
 Berger, John W.....Oconto Falls
 Doyle, Henry.....Oconto
 Grosse, Roy Sheldon.....Little Suamico
 Jaeger, Wm.....Gillett
 Johnson, Leonard F.....Suring
 Kosso, Chas.....Lena
 Lembecke, Louis.....Oconto Falls
 Magee, Ellis.....Coleman
 Schaal, J. Wesley.....Gillett
 Sexton, F. W.....Gillett
 Sexton, Earl.....Gillett
 Volk, Earl S.....Oconto Falls
 Zahn, Willie.....Gillett
 Zippel, Augustus.....Oconto

ONEIDA COUNTY.

Burkhart, Jas. Clyde.....Rhineland
 Brown, Ray
 Rhineland, 108 N. Brown St.

ANNUAL MEMBERSHIP—continued.

Luther, E. L.....Rhinelander
 Schoeneck, Paul.....Enterprise
 Schoeneck, Gust.....Enterprise

OUTAGAMIE COUNTY.

Ballard, J. E.....Appleton
 Bleek, Walter A.....Black Creek
 Blake, Wm. G. F.....Black Creek
 Brownson, Thos.....Black Creek
 Gehring, Ralph.....Little Chute
 Jamison, Howard.....Appleton
 Jamison, Stanley.....Appleton
 Jamison, Harvey.....Appleton
 Jamison, Clarence B.....Appleton
 Jamison, Robert.....Appleton
 Jamison, N. G.....Appleton
 Keenan, Maurice L.....Leeman
 Letts, E. F.....Appleton
 Mills, R. C.....Appleton
 Pirner, Fred.....Sugar Bush
 Sauberlich, Geo.....Greenville
 Ryan, Malchi.....South Kaukauna
 Renz, Jos.....So. Kaukauna
 Schaefer, Geo.....Appleton
 Schmit, Geo.....Greenville
 Thoma, Ernest.....Sugar Bush
 Wusson, Chas. A.....Seymour

OZAUKEE COUNTY.

Ahlers, Walter.....Grafton
 Behrnes, B.....Grafton
 Bittner, John A.....Saukville
 Eberhardt, H. J.....Cedarburg
 Groth, Hugo.....Cedarburg
 Groth, Louis.....Cedarburg
 Groth, Albert.....Cedarburg
 Groth, Walter.....Cedarburg
 Groth, Henry.....Cedarburg
 Kieffer, Mike.....Fredonia
 Sorweid, Willie.....Cedarburg

PEPIN COUNTY.

Fleishauer, C. K.....Arkansas
 Jahne, Julius F.....Pepin
 Sankey, Eri.....Durand

PIERCE COUNTY.

Batho, Lester.....Plum City
 Brown, Wm.....Spring Valley
 Brown, Monroe.....Bay City
 Brown, Earl.....Bay City
 Carpenter, F. W. Jr.....Spring Valley
 Clark, W. W.....Ellsworth
 Finstad, Frank.....Beldenville

Gustafson, Theo.....Maiden Rock
 Hanson, Henry O.....Spring Valley
 Jacobson, Chas.....Spring Valley
 Kuehn Herbert.....Herbert Valley
 Neystrom, Archie.....Maiden Rock
 Nyeggen, Henry.....Spring Valley
 Persons, M. B.....Plum City
 Smith, Fred.....River Falls

PRICE COUNTY.

Hoffman, Conrad.....Phillips
 Frank, Dismas.....Phillips
 Mader, J. W.....Brantwood
 Morner, Arvid.....Ogema

POLK COUNTY.

Carlson, J. E.....Luck
 Cook, Winfred.....Deer Park
 Engelhardt, F. A.....Osceola
 Holliday, Edw. L.....New Richmond
 Lawson, Andrew.....Luck
 Legrid, Henry E.....Deer Park
 Lindberg, Clinton H.....Dresser Jct.
 Perry, Edward.....Amery
 Perry, Richard.....Amery
 Pederson, H. M. R.....Luck, R. No. 1
 Peterson, E. M.....Amery
 Peterson, Henry.....Centuria
 Roanholt, Ansgar B.....Milltown
 Rehbein, A. E.....St. Croix Falls
 Searle, R. O.....Luck

PORTAGE COUNTY.

Arnott, Grace
 Stevens Point, 932 Clark St.
 Brekke, Anton B.....Rosholt
 Clark, W. E.....Stevens Point
 Hanson, N. P.....Amherst Jct. R. No. 2
 Loberg, Almer.....Nelsonville
 Parsons, Harry E.....Almond
 Peterson, Perry.....Amherst
 Shelburne, A. H.....Bancroft
 Tobie, E. P.....Amherst Jct.
 Williamson, Boyd.....Amherst Jct.

RACINE COUNTY.

Adland, P. H.....North Cape
 Chambers, O. Q.....Union Grove
 Cook, Geo. L.....Racine
 Cook, Joe C.....Racine
 Cooper, Archie H.....Franksville
 Dunkelow, Walter H.....Franksville
 Erbe, George.....Caledonia
 Foxwell, Everett.....Union Grove

ANNUAL MEMBERSHIP—continued.

Gehrand, A. A.....Rochester
 Karcher, Gilbert.....Burlington
 Karcher, Albert.....Burlington
 Klofanda, Reuben.....Racine
 Nelson, Ralph W.....Union Grove
 Nelson, Harvey A.....Union Grove
 Renak, Edw.....Racine, R. No. 2
 Robers, Wm. J.....Burlington
 Rolfsen, C. E.....Waterford
 Schelling, Jerome.....Racine R. No. 2
 Skewes, Edwin B.....Union Grove
 Screnson, Hilbert.....Franksville
 Sparta, N. A.....Union Grove
 Utter, Delwin.....Lake Beulah
 Zachar, Milton R.....Racine, R. No. 1

RICHLAND COUNTY

Bailey, Harry.....Richland Center
 Bowen, B. L.....Richland Center
 Brewer, Glenn.....Rockbridge
 Cook, A. E.....Boaz
 Cooper, Walter.....Muscodia
 Ellsworth, R. W.....Tavera
 Ewers, Gifford.....Boaz
 Ewers, Forest.....Boaz
 Ghastin, Floyd L.....Sextonville
 Ghastin, Wm. J.....Twin Bluffs
 Householder, G. M.....Richland Center
 Janecek, C. M.....Bloom City
 Jaquish, J. E.....Twin Bluffs
 Joslin, Rev. J. Stanley.....Sextonville
 Kelly, Willie.....Soldiers Grove, R. No. 2
 Lawton, A. R.....Viola
 Martin, H. A.....Gotham
 Martin, A. M.....Gotham
 Monson, Oscar.....Boaz
 Moore, J. F.....Richland Center
 Nerby, Manuel.....Blue River
 Nourse, Glen.....Sextonville
 Post, H. L.....Sextonville
 Post, Verne W.....Sextonville
 Oman, Carl.....Tavera
 Schmitz, Hubert.....Lone Rock
 Schmitz, Edw. H.....Lone Rock
 Smelcer, Fred C.....Lone Rock
 Stang, Frank.....Lone Rock
 Stewart, Otto W.....Bloom City
 Thorpe, J. R.....Tavera
 Turgasen, J. H.....Richland Center
 Welton, Guy E.....Sextonville
 Williams, A. C.....Richland Center

ROCK COUNTY.

Austin, G. M.....Janesville
 Austin, W. D.....Janesville

Austin, A. G.....Janesville
 Austin, C. P.....Janesville, R. No. 6
 Austin, W. B.....Janesville
 Austin, Alvina L.....Evansville
 Austin, Chas.....Janesville
 Austin, A.....Janesville
 Benedict, E. L.....Beloit
 Bingham, Howard.....Milton
 Bingham, E. L.....Milton
 Caldo, Leslie.....Janesville
 Coon, Elam P.....Milton
 Donner, Chas. F.....Janesville
 Dougan, W. J.....Beloit
 Godfrey, Allen.....Milton Junction
 Hemingway, Geo. L.....Hanover
 Holmes, G. A..Beloit, 1105 Chapin St.
 Honeysett, Clayton M.

Janesville, R. No. 6

Huebbe, E.....Beloit
 Kimble, N. A.....Milton Jct.
 Larson, Otto.....Evansville
 Lentell, Howard.....Beloit, R. No. 25
 Lotta, Fay L.....Clinton Jct.
 Marston, A. E.....Beloit
 Moore, Fred W.....Beloit, R. No. 30
 Newhouse, K. K.....Clinton
 Raessler, N. R.....Beloit
 Rasey, E. L.....Beloit
 Rasey, Edwin L.....Beloit, R. 27
 Schuman, Chas. F.....Koshkonong
 Schuman, Frank.....Koshkonong
 Simpson, Lloyd L.....Edgerton
 Smith, L. E.....Beloit
 Taylor, Henry T.....Milton
 Taylor, Paul E.....Milton

RUSK COUNTY.

Eke, Carl.....Bruce
 Pritchard, John.....Conrath

ST. CROIX COUNTY.

Albert, Will.....New Richmond
 Anderson, Otto.....Emerald
 Anderson, Frank.....New Richmond
 Arnquist, J. F.....New Richmond
 Arnquist, John P.....New Richmond
 Aune, J. G.....New Richmond
 Aune, H. A.....Baldwin
 Aune, Isaac.....New Richmond
 Beebe, C.....Boardman
 Bennett, W. E.....New Richmond
 Boder, R. C.....Stanton
 Brown, O. H.....New Richmond
 Brunner, R. W.....Hudson
 Brunner, Fred.....Hudson

ANNUAL MEMBERSHIP—continued.

Buttner, Albert.....New Richmond	Clingman, E. E.....Reedsburg
Carlson, Sven,Glenwood	Enge, Eugene.....Prairie du Sac
Casey, W. H.....New Richmond	Frederickson, Fred.....Spring Green
Christensen, ict.....Roberts	Gasser, Walter A.....Plain
Christopherson, C. C.....New Richmond	Gasser, Benj. C.....Plain, R. No. 1
Cody, John F.....New Richmond	Gloeckler, Theo.....Portage
Epley, Sam C.....New Richmond	Gonsolin, Fred.....Reedsburg
Fay, Albert W.....New Richmond	Grass, Christ F.....Prairie du Sac
Fay, R. G.....New Richmond	Hasheider, H. G.....Plain
Foster, C. S.....New Richmond	Hatz, Jacob A.....Prairie du Sac
Fuiten, B. H.....New Richmond	Herwig, Theo. E.....Delton, R. No. 1
Germain, Leo.....New Richmond	Hood, D. L.....Spring Green
Hansen, Wm.New Richmond	Johnson, Glenn.....Baraboo, R. No. 2
Heebink, Wm.....Baldwin	Kindschi, E. A.....Prairie du Sac
Heebink, H.....Baldwin	Koenecke, Ewald H.....Reedsburg
Higgins, John F.....Deer Park	Lachmund, Robt.....Sauk City
Hogan, Ed.....New Richmond	Langdon, Earl.....Baraboo
Hogan, John.....New Richmond	McGinnis, Chas.....Baraboo
Hogan, E. J.....New Richmond	Marshall, W. S.....Delton
Holmquist, Julius.....New Richmond	Martiny, Pierce.....Baraboo
Imrie, David.....Roberts	Moely, Edwin.....Prairie du Sac
Jacobson, H. C.....New Richmond	Oschner, Arthur.....Plain
Jabusch, Wm.Deer Park	Owen, Geo.....Baraboo
Jones, Walter.....Deer Park	Fayne, Ed. H.....Prairie du Sac
Kirsch, John J.....Deer Park	Peck, Burton.....Spring Green
Kottke, Geo. P.....Deer Park	Pearson, L. T.....La Valle
Kruschke, Alvin.....New Richmond	Randall, Tracy E.....Baraboo
Kruschke, Geo. H.....New Richmond	Rusch, E. W.....Reedsburg
Larson, Theo.....Hudson	Rusch, Albert.....Reedsburg
McNamara, Jas, T.....New Richmond	Sherwood, Chas.Spring Green
Nelson, Nels R.....Baldwin	Sprecher, Elias B.....Plain
Olman, Erick E.....Glenwood City	Steidtman, Edwin.....Merrimac
Paulson, P. A.....Hudson	Stone, Riley.....Reedsburg
Pederson, Arthur W.....Roberts	Toole, W. A.....Baraboo
Ruemmele, Geo. J.....Hudson	Trussell, Orson.....Baraboo
Rudd, Ralph R.....Deer Park	Vonder, Ohe W. H.....Reedsburg
Ryan, John.....River Falls	Weirich, M. J.....Baraboo
Ryan, Andy.....New Richmond	Wheeler, Chas.....Reedsburg
Ryan, W. F.....New Richmond	Wichern, Wm.....Baraboo
Ryan, Peter E...New Richmond R. No. 4	Wichern, C. W.....Baraboo
Schwandt, Wm.....Stanton	Wichern Bros.....Baraboo
Silver, W. W.....New Richmond	
Stiles, Chas.....Hudson	
Stindt, C. W.....New Richmond	
Sutherland, Adolph.....New Richmond	
Tracy, L. A.....New Richmond	
Utgaard, Peter.....Cylon	
Walsh, John J.....New Richmond	
Webster, W. E.....Hudson	
Wettleson, Otis.....Baldwin	
SAUK COUNTY.	
Accola, John H.....Prairie du Sac	
Borek, SamNo Freedom	
Clingman, E. S.....Reedsburg	
SAWYER COUNTY.	
Uhrenholdt, S. J.....Leonard	
Uhrenholdt, Jens.....Leonard	
SHAWANO COUNTY.	
Berg, Carl J.....Tigerton	
Buth, Otto.....Embarrass	
Germundson, Martin.....Tigerton	
Hildeman, Alex E.....Belle Plaine	
Meisner, Wm.....Embarrass	
Noorbom, Gust.....Eland	
Peterson, Walter F.....Pulaski	

ANNUAL MEMBERSHIP—continued.

Sorley, E. B.....Tigerton
Wedgwood R. E.....Shawano

SHEBOYGAN COUNTY.

Athorp, Willie G., Sheboygan R. No. 1
Bechlem, E. W.....Plymouth
Dennerlein, Arthur.....Plymouth
Frauenheim, O. R.....Random Lake
Gorsege, W. E.....Haven
Heberer, Carl H.....Adell
Hoppert, M. J.....Sheboygan
Illian, W. L.....Adell
Knoener, Geo. C.....Flynouth
Levering, E. W.

Sheboygan, 2030 No. 8th St.

Ogle, James.....Waldo
Parrish, J. O.....Plymouth
Reineking, Rudolph...Sheboygan Falls
Strauss, Norbert..Sheboygan, R. F. D.
Streiber, Walter Y.....Elkhart Lake
Swart, Witt.....Plymouth
Ubbelohde, Frank.....Sheboygan Falls
Wagner, Arthur L.....Haven
Wunsch, Alfred J. C.....Haven
Wunsch, Hugo E.....Haven

TAYLOR COUNTY.

Amacher, Fred.....Stetsonville
Schemanski, Albert.....Stetsonville
Schmoltd, Paul C.....Whittlesey

TREMPELEAU COUNTY.

Becker, P. V.....Galesville
Bishop, W. E.....Arcadia
Dahl, Olaus A.....Osseo
Dutton, C. A.....Trempeleau
Erickson, Robt.....Melrose
Hagestad, A. C.....Ettrick
Johnson, T. J.....Blair
Lund, George.....Arcadia
Markham, F. C.....Independence
Mattison, Thos.....Blair
Moen, Gilbert T.....Eleva
Paine, Allen.....Arcadia
Peterson, B. A.....Blair
Ristau, E. O.....Osseo



VERNON COUNTY.

Aberg, JacobDe Soto
Alexander, Chas.....Viroqua
Borhaven, Fred C.....De Soto
Cade, J. M.....Viroqua
Hollten, David.....Westby

Hoilien, Helmer.....Westby
Jasperson, Alfred.....Viroqua
Johnson, Roy M.....De Soto
Lawrence, W. J.....De Soto
Nepnud, N. O.....Coon Valley
Rogers, H. J.....Stoddard
Sebion, T.....Westby
Sebion, Cornelius.....Westby
Seymour, J. Harold.....De Soto
Staley Bros.....Hillsboro
Stegne, Chris.....Viroqua

VILAS COUNTY.

Radcliffe, A. E.....Casco

WALWORTH COUNTY.

Ames, Lloyd J.....Elkhorn
Bayley, A. O.....Lake Buelah
Basecker, Howard.....Delavan
Bromley, Fred G...Whitewater, R. No. 4
Colt, Henry.....Darien
Dunbar, Harry D.....Elkhorn
Ells, Ross H.....Darien
Ells, F. W.....Elkhorn
Forester, M. F.....Whitewater
Harris, JesseDelavan
Harris, Ben F.....Delavan
Harris, R. S.....Delavan
Hodge, Roy.....Lake Beulah
Kiteley, Leonard S.....Sharon
Lean, I. F.....Elkhorn
Lewis, H.....Whitewater
Martin, W. H.....Lake Geneva
Millis, Theron.....Whitewater
Millis, Horace E.....Whitewater
Meurer, Paul.....Genoa Junction
Palmer, F. Earl Lake Geneva, R. No. 2
Peters, Ralph A.....Sharon
Peters, Ezra.....Sharon
Smith, Carroll.....Delavan
Sturtevant, Robt.....Delavan
Thacher, Ed. F.....Zenda
Wright, John.....Whitewater

WASHBURN COUNTY.

Carlson, J. M.....Spooner
Curtis, RalphMadge
Rylander, Ed.....Shell Lake
Soholt, O. S.....Madge
Soholt, G. L.....Spooner

WASHINGTON COUNTY.

Ahlers, Fred.....West Bend
Backus, Franklin.....Kewaskum

ANNUAL MEMBERSHIP—continued.

Baertlein, Wm. A.....	So. Germantown	Holt, Frank.....	Oconomowoc
Baertlein, V. J.....	So. Germantown	Jacobson, Fred E.	
Braun, John A.....	So. Germantown		Oconomowoc, R. No. 26
Connell, Wm. A.		Kaul, E. H.....	Waukesha
	Menominee Falls, R. No. 18	Kelpper, Walter.....	Menomonee Falls
Connell, C. J.....	Menomonee Falls	Kuhtz, Harvey.....	Waukesha
Gettelman, Ira.....	So. Germantown	Lobbell, Martyn C.....	Mukwonago
Gerner, Ed. W.....	Barton	McKenzie, Will.....	Mukwonago
Gutschenritter, F. J.....	West Bend	Mann, R. J.....	Waukesha
Hamlyn, W.....	West Bend	Mitchell, Dean S.....	Brookfield
Hoelz, Jacob, Jr.....	Rockfield	Mitchell, Chas. J.....	Brookfield
Klinka, John S.....	West Bend	Mitwede, Henry.....	Waukesha, R. No. 1
Klumb, Albert J.....	Rockfield	Moldenhauer, Fred	
Klumb, Arthur L.....	Rockfield		Oconomowoc, R. No. 25
Klumb, Hugo G.....	Kewaskum	Nicolaus, D. C.....	Mukwonago
Konrad, Peter G.....	So. Germantown	Odell, Wm. G.....	Mukwonago
Puls, John.....	Hartford	Reyer, Walter R.....	Templeton, R. No. 20
Quandt, Wm. F.....	Hartford	Rosenow, H. E.....	Oconomowoc
Raether, Herman.....	Colgate	Rosenow, Arthur.....	Oconomowoc
Salter, Milo P.....	West Bend	Schaefer, Chas.....	Waukesha, R. No. 7
Schoedel, Arthur.....	Barton	Sexton, S. P.....	Mukwonago
Showalter, C. J.....	So. Germantown	Sletz, Adam.....	Waukesha
Showalter, Alvin.....	Jackson	Sleep, C. S.....	Hartland
Stark, Fred G.....	Rockfield	Smith, Geo. J.....	Nashotah
Techman, C. W.....	Kewaskum, R. No. 4	Swartz Bros.....	Waukesha
Weinreich, Fred C.....	Fredonia	Swoboda, F. G.....	Dousman
Weiss, Glen C.....	West Bend	Van Buren, E. W.....	Waukesha
Ziemer, Paul F.....	Jackson, R. No. 2	Vance, Wilson.....	Pewaukee
		Will, Chas. J.....	Menomonee Falls
		Williams, Ed. T.....	Wales
		Woelpel, Fred J.....	Waukesha
		Zillmer, Wm. C.....	Brookfield

WAUKESHA COUNTY.

Aarons, Elias.....	Dousman
Aarons, Harry M.....	Dousman
Baird, J. W.....	Waukesha
Baird, W. L.....	Waukesha
Baird, Robt. L.....	Waukesha
Blood, I. Jr.....	Mukwonago
Boyd, Jas. T.....	Waukesha
Butler, G. C.....	Templeton
Cooper, G. J.....	Pewaukee
Dance, Jas. H.....	Brookfield
Dance, Geo.....	Brookfield
Dolbertin, Samuel R.....	Hartland
Dustrude, Geo.....	Oconomowoc
Fuller, Horace.....	North Lake
Fuller, Albert.....	North Lake
Fuller, Roland.....	North Lake
Fuller, Arthur F.....	Menomonee Falls
Gourlie, Forrest.....	Oconomowoc
Hall, Frank.....	Hartland, R. No. 21
Hall, John.....	Hartland
Hicken, A. B.....	Pewaukee
Hill, J. T.....	Brookfield
Hill, Chas. T.....	Brookfield
Hill, C. C.....	Brookfield
Holt, Lester.....	Oconomowoc

WAUPACA COUNTY.

Bestul, Martin.....	Scandinavia
Glocke, Arthur A.....	Weyauwega
Hansen, Henry N.....	Clintonville
Haidke, Wm. A.....	Clintonville
Harrington, Forest F.	
	Waupaca, R. No. 6
Harrington, Myron H.....	Waupaca
Kendall, Myron.....	Iola
Knoke, Hugo.....	Readfield
Kunkel, Arthur.....	Manawa
Larson, Leroy.....	Iola
Lewis, Edgar M.....	Weyauwega
Nace, Franklin.....	Iola
Pierner, Ira C.....	Sugar Bush
Pinkerton, Fred.....	Waupaca
Pinkerton, A. J.....	Waupaca
Pirner, John.....	Manawa
Quien, P. A.....	Scandinavia
Rosholt, J. A.....	Scandinavia
Spletter, Oscar.....	Manawa
Suhs, John Jr.....	Waupaca
Tellock, Raymond.....	Clintonville

ANNUAL MEMBERSHIP—continued.

WAUSHARA COUNTY.

Barnes, Phil H.....Hancock
 Eagan, J. J.....Wautoma
 Gray, G. W.....Coloma
 Harris, A. M.....Plainfield
 Jones, Howard.....Wild Rose
 Knutson, Ernest L...Wautoma, R. No. 3
 Larson, J. M.....Wautoma
 Owens, Edwin.....Wild Rose
 Thorstad, Clarence,Wautoma
 Weymouth, Max.....Plainfield

WINNEBAGO COUNTY.

Allen, Harry O.....Allenville
 Blakely, A. J.....Neeah
 Boss, Samuel J.....Oshkosh, R. No. 7
 Boss, U. C.Oshkosh, R. No. 7
 Brick, E. C.Winneconne
 Bussey, W. P.Omro
 Calder, Archie.....Allenville
 Calkins, W. B.....Winneconne
 Cross, J. S.....Winneconne
 Cross, J. T.....Winneconne
 Cross, A. J.....Allenville
 Davis, J. T.....Winneconne
 J. T. Davies.....Winneconne
 Goodel, W. A.....Winneconne
 Grimm, Adolph.....Allenville
 Hoppe, Frank.....Omro
 Humphrey, J. M.....Winneconne
 Ihrig, J. J.....Oshkosh, R. No. 4
 Jennings, Edwin.....Fisk
 Krings, Jos.Winneconne
 Marshall, A. C.....Omro
 Meltz, C.....Allenville
 Miller, John.....Winneconne
 Miller, T. R.....Winneconne
 Miller, Homer.....Pickett
 Miller, Henry C.....Allenville
 Miracle, A. H.....Winneconne
 Overton, Geo.....Winneconne
 Plummer, Arthur...Oshkosh, R. No. 6
 Pommereing, Ed. C.....Oshkosh
 Pcwars, William C.

Winnebago, 197 Grand Ave.

Race, Ed.....Omro
 Schaefer, R. J.....Appleton
 Smith, Seymour L.....Oshkosh
 Treela, F. W.....Winneconne
 Trelevan, Guy T.....Omro
 Volkman, Carl.....Winneconne

WOOD COUNTY.

Cahill, J. B.....Grand Rapids
 Kronholm, Edw.Grand Rapids

Malde, O. R.....Grand Rapids
 Peterson, Einar.....Milladore
 Peterson, Anton.....Milladore
 Schroeder, Herman.....Marshfield
 White, T. J.....Vesper

AFRICA.

Phear, H. J.....Kimberley, So. Africa

CANADA.

Kramer, C. N....Walkersville, Ontario

CALIFORNIA.

Belz, Frank A.....Visalia

FLORIDA.

Arnold, Harold..... St. Johns Park

IDAHO.

Raftery, Agnes.....Fost Falls

ILLINOIS.

Albercht, H. C.....Ohio
 Bennett, H. J.Cherry Valley
 Briggs, Lynn..Urbana
 Brotherton, Alvin.....Pectonica
 Chetlain, L. A.....Gelena
 Coffin, Russell H.....Rockford
 Erickson, L. W.

Chicago, 1414 Carmen Avenue

Hitchcock, Homer.....Pecatonica
 Hans, Enoch.....Mokena
 Howland, R. R.

Chicago, 4825 Vincennes Ave.

Hult, Leslie, ..Rockford, 1139 5th Ave.
 Jones, Ira P.....Hinckley
 Kiner, Eldon E.....Marseilles
 Miller, Ralph B.....Antioch
 Miller, H. H.Chicago
 ..Care of Albert Dickinson, Seed Co.
 McGeachie, E. P....Rockford, R. No. 8
 Northup, W. H.....Homewood
 Osterday, E. G.....Stockton
 Phillips, Jesse.....Elizabeth
 Richardson, Geo. J.....Spring Grove
 Schafer, F. W.....Hinsdale
 Smithwick, M. W.....

Chicago, care of American Steel & Wire Co.

IOWA.

Anderson, Theo.....Waterville
 Brooks, H. H.....Hopkinton

ANNUAL MEMBERSHIP—continued.

Fawkes, Louis A.....Evanston
 Irmischer, Gilbert S.....Coleburg
 Kaiser, E. F.....Garnavillo
 Thompson, T. Jr.....Wadena
 Voelker, Edw.....Farmersburg

MEXICO.

Cardenas, F. F.....Ocampo, Coah

MICHIGAN.

Fox, H. L.....Elk Rapids
 Hatch, L. M.....Big Bay
 Larson, Chas.....Gladwin
 Savage, A. F.....Fremont

MINNESOTA.

Alcalay, Dr. S. J.....Cottonwood
 Doerschuk, J. J.....Rozalton
 Florsheim, Isaac.....Neving
 Imholt, B. A.....Stillwater
 Hillier, H. B.....Brownsdale
 Richards, Griffith.....Little Falls
 Schafer, Otto H.....Stillwater
 Schuette, H. N.....Rochester
 Wiker, N. H.....Mabe

NEW YORK.

Coleman, Maurice E.....Perry
 Coleman, Chas. H.....Perry
 Mills, Stanley.....Walden
 Schermerhorn, G. B.....Keeseville
 Lawson, H. L.....Salt Point

NORTH DAKOTA.

Smith, Guy W.....Bonnineau

OHIO.

Barker, W. H.....New Lyme

PENNSYLVANIA.

Fleishman, Geo. S.
 Alleghany, 5739 Woodman St.
 Rorer, W. A.....Colebrook
 Switzer, John N.....Lebanon

WASHINGTON.

West, R. N.....No. Yakima

PREMIUM AWARDS

AT

Annual Pure Bred Grain Show.

MEMBERS AWARDED CASH AND SPECIAL PREMIUMS AT THE WISCONSIN AGRICULTURAL EXPERIMENT ASSOCIATION MEETING JANUARY 26, 27, 1912.

Class 1a—Best $\frac{1}{2}$ peck Wisconsin Pedigree oats.	
First—H. P. West, Ripon.....	\$4 00
Second—H. E. Kreuger, Beaver Dam.....	3 00
Third—Fred Grebe, Fox Lake.....	2 00
Fourth—Chas. Howitt, Randolph.....	1 00
Fifth—H. W. Meeker, Fond du Lac.....	50
Class 1 b—Best $\frac{1}{2}$ peck Swedish Select oats (Wis. No. 4.)	
First—Jas. H. Sattler, Rosendale (Cleland Smut Machine).....	\$25 00
Second—J. P. Bonzelet, Eden.....	3 00
Third—John G. Jones, Beaver Dam.....	2 00
Fourth—Theo. S. Ward, Ft. Atkinson.....	1 00
Fifth—H. W. Meekin, Fond du Lac.....	50
Class 1c—Best $\frac{1}{2}$ peck of any variety of oats.	
First—Jas. Sattler, Rosendale.....	4 00
Second—J. H. Hendricks, Campbellsport.....	3 00
Third—H. P. West, Ripon.....	2 00
Fourth—W. T. Bilderbach, Mondovi.....	1 00
Fifth—H. C. Owen, Fox Lake.....	50
Class 2a—Best bundle Swedish Select oats (Wis No. 4.)	
First—Chas. Howitt, Randolph.....	4 00
Second—Wm. Schwandt, Stanton.....	3 00
Third—A. L. Wagner, Haven.....	2 00
Fourth—Robt. Ward, Ft. Atkinson.....	1 00
Fifth—Jas. Sattler, Rosendale.....	50
Class 2b—Best bundle any other variety.	
First—Chas. Howitt, Randolph.....	4 00
Second—Wm. Schwandt, Stanton.....	3 00
Third—Fred Grebe, Fox Lake.....	2 00
Fourth—Theo. S. Ward, Ft. Atkinson.....	1 00
Fifth—C. J. Connell, Menominee Falls.....	50
Class 3a—Best $\frac{1}{2}$ peck Pedigree barley.	
First—H. E. Krueger, Beaver Dam.....	4 00
Second—J. P. Bonzelet, Eden.....	3 00
Third—H. P. West, Ripon.....	2 00
Fourth—John G. Jones, Beaver Dam.....	1 00
Fourth—Jas. Sattler, Rosendale.....	50

Class 3b—Best ½ peck Oderbrucker barley.	
First—H. E. Kreuger, Beaver Dam.....	4 00
Second—John G. Jones, Beaver Dam.....	3 00
Third—H. P. West, Ripon.....	2 00
Fourth—A. Austin, Janesville.....	1 00
Fifth—H. W. Meekin, Fond du Lac.....	50
Class 3c—Best ½ peck any other variety of barley.	
First—Anton Bohl, Beaver Dam.....	4 00
Second—John G. Jones, Beaver Dam.....	3 00
Third—H. W. Meekin, Fond du Lac.....	2 00
Fourth—H. P. West, Ripon.....	1 00
Class 4a—Best bundle of Pedigree barley.	
First—Jas. Sattler, Rosendale.....	4 00
Second—H. E. Kreuger, Beaver Dam.....	3 00
Third—Chas. Howitt, Randolph.....	2 00
Fourth—Fred Grebe, Fox Lake.....	1 00
Fifth—Robt. Ward, Ft. Atkinson.....	50
Class 4b—Best bundle of Oderbrucker barley.	
First—Robt. Ward, Ft. Atkinson.....	4 00
Second—H. E. Kreuger, Beaver Dam.....	3 00
Third—Chas. Howitt, Randolph.....	2 00
Fourth—J. P. Bonzelet, Eden.....	1 00
Fifth—Theo. S. Ward, Ft. Atkinson.....	50
Class 4c—Best bundle any variety of barley.	
First—H. P. West, Ripon.....	4 00
Second—Theo. S. Ward, Ft. Atkinson.....	3 00
Third—Fred Grebe, Fox Lake.....	2 00
Fourth—H. E. Kreuger, Beaver Dam.....	1 00
Class 5a—Best ten ears Silver King (Wis. No. 7).	
First—J. H. Thorpe, Tavera.....	4 00
Second—S. P. Markle, La Crosse.....	3 00
Third—Frank Joos, Fountain City.....	2 00
Fourth—M. E. Swift, Waterman, Ill.....	1 00
Fifth—Noyes Raessler, Beloit.....	50
Class 5b—Best ten ears Early Yellow Dent (Wis. No. 8.)	
First—Chas. Howitt, Randolph.....	4 00
Second—Fred Grebe, Fox Lake.....	3 00
Third—H. P. West, Ripon.....	2 00
Fourth—N. H. Raessler, Beloit.....	1 00
Fifth—J. H. Thorpe, Tavera.....	50
Class 5c—Best ten ears Golden Glow corn (Wis. No. 12).	
First—C. H. Howitt, Randolph.....	\$15 Ped. seed grains
Second—W. E. Bishop, Arcadia.....	3 00
Third—Wm. Schwandt, Stanton.....	2 00
Fourth—J. A. Brunker, Ridgeway.....	1 00
Class 5d—Best ten ears Clarks Yellow Dent corn (Wis. No. 1.)	
First—J. R. Thorpe, Tavera.....	4 00
Second—H. F. West, Ripon.....	3 00
Third—Chas. Howitt, Randolph.....	2 00
Fourth—Fred Grebe, Fox Lake.....	1 00
Fifth—H. P. West, Ripon.....	50
Class 5e—Best ten ears North Star Yellow Dent (Wis. No. 11).	
First—Tracy Randall, Baraboo.....	4 00
Second—C. H. Howitt, Randolph.....	3 00
Third—Fred Grebe, Fox Lake.....	2 00

Class 5f—Best ten ears Yellow Flint corn.

First—Chas. Howitt, Randolph.....	4 00
Second—Henry Doyle, Oconto.....	3 00

Class 5g—Best ten ears White Flint.

First—H. P. West, Ripon.....	4 00
Second—G. H. Leonard, Jefferson.....	3 00
Third—Anton Bohl, Beaver Dam.....	2 00
Fourth—Wm. Leonard, Jefferson.....	1 00

Class 5h—Best ten ears, any variety of corn.

First—L. H. Brueckner, Jefferson.....	4 00
Second—H. Brueckner, Jefferson.....	3 00
Third—A. N. Kelly, Mineral Point.....	2 00
Fourth—N. R. Raessler, Beloit.....	1 00
Fifth—H. P. West, Ripon.....	50

Class 5i—Best single ear of corn.

First—Chas. Howitt, Randolph.....	\$15 worth Ped. Barley
Second—J. J. Clark, Oshkosh.....	\$10 worth winter wheat
Third—S. P. Markle, La Crosse.....	2 00
Fourth—H. P. West, Ripon.....	1 00
Fifth—H. Brueckner, Jefferson.....	50

Class 5½ Special. Best 50 ears Silver King corn (Wis. No. 7.)

First—J. R. Thorpe, Tavera.....	J. I. Case Plow	50 00
Second—S. F. Markle, La Crosse.....		6 00
Third—Sam Messerschmidt, Madison.....		3 00
Fourth—Kaltenberg & Son, Waunakee.....		2 00
Fifth—Frank Joos, Fountain City.....		1 00

Class 5½ Special. Best 50 ears any Wisconsin Standard Yellow Dent.

First—Chas. Howitt, Randolph.....	Osborne Peg-tooth harrows	25 00
Second—Arthur Oschner, Plain.....		6 00
Third—A. H. Kuhlman, Lowell.....		3 00
Fourth—J. H. Thorpe, Tavera.....		2 00
Fifth—Fred Grebe, Fox Lake.....		1 00

Class 6a—Best ½ peck Medium Red Clover seed.

First—J. H. Accola, Prairie du Sac.....	4 00
Second—Tracy Randall, Baraboo.....	3 00
Third—Fred Grebe, Fox Lake.....	2 00
Fourth—Louis Groth, Cedarburg.....	1 00
Fifth—H. P. West, Ripon.....	50

Class 6b—Best ½ peck of Mammoth Red Clover seed.

First—H. W. Meekin, & Son, Fond du Lac.....	4 00
Second—H. P. West, Ripon.....	3 00
Third—H. E. Kreuger, Beaver Dam.....	2 00

Class 6c—Best ½ peck Alsike clover.

First—H. P. West, Ripon.....	4 00
Second—H. E. Kreuger, Beaver Dam.....	3 00

Class 6d—Best ½ peck White Clover seed.

First—H. P. West, Ripon.....	4 00
Second—Wm. Leonard, Jefferson.....	3 00
Third—H. E. Kreuger, Beaver Dam.....	2 00

Class 7a—Best ½ peck Black Soy beans.

First—H. E. Kreuger, Beaver Dam.....	3 00
Second—H. P. West, Ripon.....	2 00
Third—W. T. Bilderbach, Mondovi.....	1 00
Fourth—F. P. Grebe, Fox Lake.....	50

Class 7b—Best ½ peck Green Soy beans.	
First—Bobt. Ward, Ft. Atkinson.....	3 00
Second—H. P. West, Ripon.....	2 00
Third—F. P. Grebe, Fox Lake.....	1 00
Fourth—H. E. Kreuger, Beaver Dam.....	50
Class 7c—Best ½ peck Yellow Soy beans.	
First—T. S. Ward, Fort Atkinson.....	3 00
Second—Robt. Ward, Ft. Atkinson.....	2 00
Third—R. W. Chatterton, Bosco.....	1 00
Fourth—Fred Grebe, Fox Lake.....	50
Class 7d—Best ½ peck Brown Soy beans.	
First—T. S. Ward, Fort Atkinson.....	3 00
Second—Robt. Ward, Ft. Atkinson.....	2 00
Third—H. P. West, Ripon.....	1 00
Fourth—Fred Grebe, Fox Lake.....	50
Class 8a—Best bundle of Soy beans.	
First—Robt. Ward—Ft. Atkinson.....	3 00
Second—Theo. S. Ward, Ft. Atkinson.....	2 00
Third—John G. Jones, Beaver Dam.....	1 00
Fourth—O. R. Jones, Beaver Dam.....	50
Class 9a—Best ½ peck Alfalfa seed.	
First—H. W. Meekin & Son, Fond du Lac, 2-section Alfalfa harrow	25 00
Second—H. E. Kreuger, Beaver Dam.....	3 00
Third—H. P. West, Ripon.....	2 00
Fourth—M. Ryan, S. Kaukanna.....	1 00
Class 10a—Best sample Alfalfa hay.	
First—P. A. Paulson, Hudson.....	\$15 Salzers Fed. seeds
Second—Chas. Howitt, Randolph,	\$10 Salzers Fed. seeds
Third—J. J. Clark, Oshkosh.....	2 00
Fourth—John G. Jones, Beaver Dam.....	1 00
Class 11a—Best ½ peck Winter rye.	
First—A. L. Wagner, Haven.....	3 00
Second—Wm. Schwandt, Stanton.....	2 00
Third—J. P. Bonzelet, Eden.....	1 00
Fourth—H. P. West, Ripon.....	50
Class 11b—Best ½ any other variety of rye.	
First—H. E. Kreuger, Beaver Dam.....	3 00
Second—A. L. Wagner, Haven.....	2 00
Third—W. J. Steinhoff, Platteville.....	1 00
Fourth—P. A. Paulson, Hudson.....	50
Class 12a—Best ½ peck Timothy seed.	
First—H. P. West, Ripon.....	\$15 by Alb. Dickinson Seed Co.
Second—A. Oschner, Plain.....	\$10 by Alb. Dickinson Seed Co.
Third—H. W. Meekin & Son, Fond du Lac.....	1 00
Fourth—A. C. Ellickson, Arlington.....	50
Class 13a—Best ½ peck Silver Hull buckwheat.	
First—H. E. Kreuger, Beaver Dam.....	3 00
Second—H. P. West, Ripon.....	2 00
Third—W. E. Chatterton, Basco.....	1 00
Fourth—A. Austin, Janesville.....	50
Class 13b—Best ½ peck Japanese buckwheat.	
First—H. W. Meekin & Son, Fond du Lac.....	3 00
Second—H. P. West, Ripon.....	2 00
Third—Fred Grebe, Fox Lake.....	1 00

Class 14a—Best ½ peck Winter wheat.	
First—H. E. Krueger, Beaver Dam.....	4 00
Second—H. P. West, Ripon.....	2 00
Third—J. A. Accola, Prairie du Sac.....	1 00
Fourth—Alvin Voigt, Oconomowoc.....	50
Class 14b—Best ½ peck Spring wheat.	
First—A. L. Wagner, Haven.....	5 00
Second—H. E. Krueger, Beaver Dam.....	2 00
Third—H. P. West, Ripon.....	1 00
Fourth—Wm. Neuberger, Reeseville.....	50
Class 15a—Best bundle Winter wheat.	
First—H. E. Krueger, Beaver Dam.....	3 00
Second—F. B. Joos, Fountain City.....	2 00
Third—Fred Grebe, Fox Lake.....	1 00
Class 15b—Best bundle Spring wheat.	
First—Chas. Howitt, Randolph.....	3 00
Second—Theo. Ward, Fort Atkinson.....	2 00
Third—A. L. Wagner, Haven.....	1 00
Fourth—H. E. Kreuger, Beaver Dam.....	50
Class 16a—Best sample of Navy beans.	
First—Fred Grebe, Fox Lake.....	3 00
Second—H. E. Kreuger, Beaver Dam.....	2 00
Third—H. P. West, Ripon.....	1 00
Fourth—Howard Jones, Wild Rose.....	50
Class 17a—Best single stalk with pods attached.	
First—H. C. Owens, Fox Lake.....	3 00
Second—Fred Grebe, Fox Lake.....	2 00
Third—Chas. Howitt, Randolph.....	1 00
Fourth—H. E. Kreuger, Beaver Dam.....	50

Greatest and best display of threshed grain was awarded to Fond du Lac County order of the Experiment Association..Walking Plow, value \$25

Greatest and best display of sheaf grains was awarded to Fond du Lac county order of the Experiment Association..... 10 00

Second best display of threshed grain was awarded to Dodge Co. order of the Experiment Association..... 5 00

Second best display of sheaf grain was awarded to Dodge Co. order of the Experiment Association..... 5 00

SPECIAL PRIZES AND TROPHIES GIVEN AT THE LAST ANNUAL SEED GRAIN CONTEST BY FRIENDS OF THE ASSOCIATION.

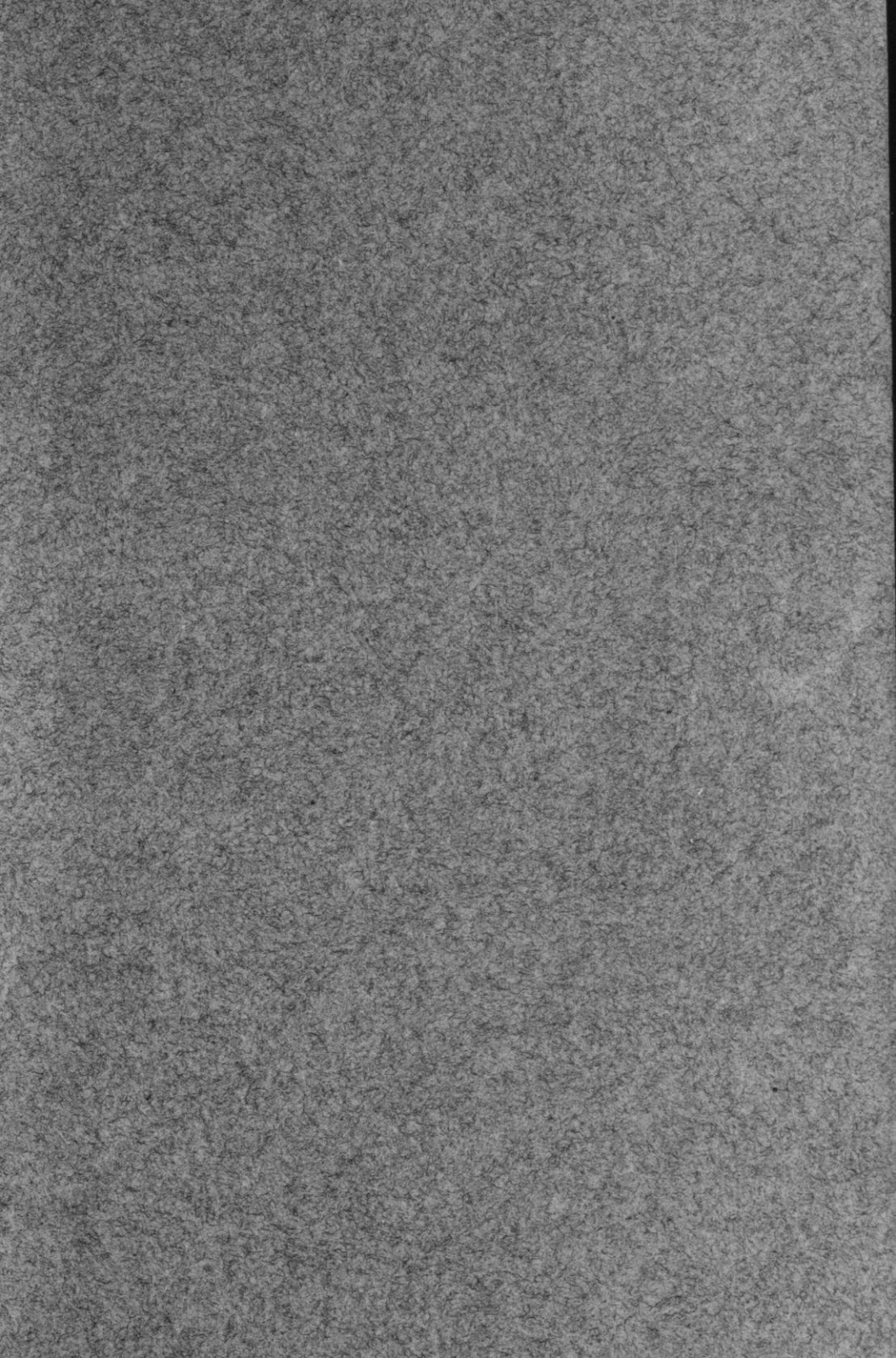
Through the kindness of friends of the Wisconsin Experiment Association, we were able to offer at the last annual display of grain and forage plants, the following special prizes and trophies:

J. I. Case Company, Racine, offered a J. I. Case Sulky Plow for the best fifty ears of Silver King (Wisconsin No. 7 Corn), valued at \$50.00, won by J. R. Thorpe, Tavera.

Cleland Mfg. Co., Minneapolis, Minn., offered a Cleland Smut Machine for best half peck of Swedish Select oats (Wis. No. 4), valued at \$25.00, won by James H. Sattler, Rosendale.

J. P. Bonzelet Eden offered \$15 worth Pedigree seeds for best ten ears Wis. No. 12 corn, won by C. H. Howitt Randolph.

- International Harvester Co. of America offered a Osborne Peg Tooth Harrow for best fifty ears of any Wisconsin Standard Yellow Dent corn, valued at \$30.00, won by Chas. Howitt, Randolph.
- H. E. Kreuger, Beaver Dam, offered \$15 worth Worlds Champion barley for best single ear of corn and \$10 worth Worlds Champion winter wheat for second best ear of corn. Barley won by Chas. Howitt Randolph. Wheat won by J. J. Clark, Oshkosh.
- L. L. Olds Seed Company offers for best half peck barley \$10 oats \$10 and wheat \$5. H. E. Kreuger, Beaver Dam, best $\frac{1}{2}$ peck barley; Jas. Sattler, Rosendale, best $\frac{1}{2}$ peck oats; A. L. Wagher, Haven, best $\frac{1}{2}$ peck wheat.
- Jas. B. Cheesman, Racine, offered \$30 for best bushel of alfalfa seed, \$15 for best bushel alsike clover, \$15 for best bushel Swedish select oats, \$20 for best bushel Wis. No. 12 pedigree barley, \$15 for best bushel medium clover seed. Tracy Randall, Baraboo, won on best bushel clover; A. Bohl, Beaver Dam, won on best bushel barley; Jas. Sattler, Rosendale, won on best bushel oats.
- Fred Fabst, Oconomowoc, offered a Berkshire pig to the person taking the greatest number of cash prizes on pure bred corn, won by C. H. Howitt, Randolph.
- A sterling silver trophy, for best sample Swedish Select oats, valued at \$40.00, given by Chamber of Commerce, Milwaukee, won by James H. Sattler, Rosendale.
- A sterling silver trophy, for best sample Spring Wheat, valued at \$40.00, given by Chamber of Commerce, Milwaukee won by A. L. Wagner, Haven.
- J. P. Bonzelet, Sunny Slope Farm, Eden, offered pedigree seeds for the best ten ears Golden Glow corn; value \$10.00. Won by C. H. Howitt, Randolph.
- J. A. Salzer Seed Co., La Crosse, offered \$15.00 worth Salzers pedigree seeds for best sample of alfalfa hay and \$10.00 worth Salzers pedigree seeds for second best alfalfa hay. P. A. Paulson, Hudson, first; C. Howitt, Randolph, second.
- A sterling silver trophy, for best sample of Winter rye, valued at \$40.00, given by Chamber of Commerce, Milwaukee, won by A. L. Wagner, Haven.
- A sterling silver trophy, for best bundle Oderbrucker barley, valued at \$40.00, given by Chamber of Commerce, Milwaukee, won by Robt. Ward, Ft. Atkinson.
- A sterling silver trophy, for best sample of Oderbrucker barley, valued at \$125.00, given by the Wisconsin Brewers' Association, won by H. E. Krueger, Beaver Dam.
- A sterling silver trophy, for best ten ears of Golden Glow corn, valued at \$60.00, given by Wisconsin Agriculturist, Racine, won by C. H. Howitt, Randolph.
- A sterling silver trophy, for best ten ears Silver King corn, valued at \$40.00, given by Chamber of Commerce, Milwaukee, won by J. R. Thorpe, Tarara.
- A sterling silver trophy for best sample pedigree barley, value \$60 given by Wisconsin Farmer, won by H. E. Kreuger, Beaver Dam.
- Madison Plow Co., Madison, offered a Wisconsin Clipper Plow, valued at \$25, for best exhibit of threshed grains made by any County Order of the Experiment Association, won by Fond du Lac County Order.



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