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TODAY'S WEATHER.

WASHINGTON, Jan. 12.—Indications: Minnesota: Fair; warmer in western portions; northerly, shifting to southerly winds.

Wisconsin: Fair; northerly winds.

North and South Dakota and Montana: Fair; warmer; southerly winds.

TEMPERATURES:

Boston	36-40	New Orleans	46-50
Chicago	6-10	New York	38-44
Cincinnati	4-34	Pittsburg	6-42
Montreal	26-34		

TOM CARTER will put the "Footprints of Time" on the senate floor for the next six years.

THE big drop in mercury does not necessarily mean there will be a fall in the price of wheat.

AN INDIANA man has eaten twenty-four eggs in twenty-four minutes. No wonder Indiana goes Republican.

IT is becoming all too apparent that a census of the honest people of South Dakota would not fill a very large book.

H. O. HAVEMEYER has the grip. It should not bother him, however, as he has had the grip on the sugar market so long.

THEY have just as bad luck in the senate as anywhere else. Thirteen United States senators are about to drop out of sight.

SOMEBODY has robbed Gov. Upham of his watch in broad daylight. Can it be that Wisconsin's governor is a common, every-day chump?

THE preachers will now have a chance to explain that the breaking out of small-pox at Roby was a visitation of the wrath of the Almighty.

EX-GOV. WAITE will lecture in Washington on "Who's Our Fat Friend?" This appears to be a slap at either Grover Cleveland or Tom Reed.

ACCORDING to dispatches to the Journal, Tribune and Pioneer Press, seven-eighths of the towns of the state are for both Washburn and Nelson.

ANOTHER American actress has made a decided hit in England. Miss May Yohe has married Lord Francis Hope, heir presumptive to the dukedom of Newcastle.

THE reprints of editorials from the Pioneer Press in which its sarcastic editor caustically diagnosed, dissected and eviscerated Senator Washburn years ago, merely indicate that he remains of the same opinion still.

BELLE BILTON is going back on the stage, because the finances of the Earl of Clancarty have not prospered lately. The GLOBE has been apprehensive of trouble ever since Belle named one of her twins Power Francis William Le Poer French.

STATESMEN IN CONFIDENCE.

The German and Belgian and Austrian statesmen give each other the wink as they read these fierce diatribes of the Republican papers of this nation—if they read them—for the barring out of the meat products of this country from theirs on the ground that they are diseased. They think it is a very good good joke, and would be incredulous were any one to assure them that the frenzy of these editors is not wholly assumed, but is really real. "Why, of course, my dear fellow," we can imagine one of them saying to some one of these fierce and indignant protestants, "we know your meats are healthy and healthful. I am surprised that you should think that we believe what we say about their diseased condition. I should imagine your own experience as a devout defender of the fiscal policy of your party would lead you to suspect that, if not to know it. You are as familiar with these little artifices of statesmen as we are, and your own use of your little deceptions should sharpen your perceptions in discovering those of other statesmen.

"Now let us be frank with each other. We might as well be. We on this side of the water are merely playing the same game you have played for years, only with different cards. We want votes and so do you. The votes we want are those of our agrarians; those you want are those of your wage-earning classes. We fish with different baits, to change the metaphor, because our fish are of different species. You catch your wage earners with the pretense that if the goods made by our people should come in freely to your country, the wages of your labor would be reduced. You know they wouldn't, of course, just as we know that your meats are as healthy as our own; but you land your fish, and between us, and in confidence, that is all you and we want.

"We want to land the votes of our farmers. Your meats compete with theirs. You can raise and lay them down here much cheaper than our farmers want to sell theirs for, not than they can sell for, but cheaper than they want to. I trust you perceive the difference. If we were to shut out your meats, and bluntly state that to be our purpose, we would have our whole laboring classes about our ears in no time, buzzing and stinging, too. So we have to horrify them with talk about disease and death, just as you, my dear fellow, bugaboo—pardon the term, but it is so fitting—your workingmen with your talk about pauper labor.

"Just now we use, too, your differential on sugar, but that is a humbug, too—you see I'm perfectly frank—for we know as well as you do that that only makes your people pay more for their sugar, and, in spite of your funny Mr. McKinley, we don't pay it. Now calm yourself, pray; don't get excited because we set in to play the same game you have been playing so long. Of course, we will hurt your farmers, but they are a patient and docile lot of cattle who rather enjoy this sort of thing. I see they recently restored your party to power, and on this I base my judgment of them. And I can understand, of course, that your indignation is merely a playing to the farmers in your galleries; talking through your hat, I believe you Americans express it. But what you and I are after is position, place, power, and we can't stop to be too considerate of these poor devils who work in our shops or on your farms, you know, can we, now?"

ANOTHER BUILDER GONE.

Another addition is made to the list of those men who came here when Minnesota was hardly more than a fringe of settlements hugging the water lines of transportation, and lent a strong and influential hand in the development of the settlements into a state, and have passed over to the silent majority, in the death yesterday afternoon of John L. Merriam.

Like Wilder and Drake and others who preceded him into the other world, Mr. Merriam saw the opportunities presented to all those who had the sagacity to see and the energy and ability to improve them in the new state so rich and manifold in its resources and so certain to be swept and covered by the incoming tide of immigration. He saw that the pressing need of the pioneers, crowding further and further away from the rivers out onto the prairies, was some better and cheaper means of transportation for their produce to the markets than teams, and that to those who provided the means there was promise of a rich reward for their efforts. He gave to this work his time and talents, and reaped a harvest of wealth. In many other directions, as wealth came to him, he lent his means and abilities to enterprises aiding in the development of the state, and is entitled to take a place among its prominent builders.

THE THEORY AND PRACTICE.

"Philosopher," queried an embryotic American citizen, taking his first inlook into the political formation of things and asking why with all the curiosity of youth, "why do they not elect senators as soon as the legislature assembles instead of waiting two weeks?" And the philosopher laid his pipe aside, and, dropping his plummet into the well where only absolute truth prevails, thus discoursed to the receptive youth.

"My son, the potent, grave and reverend seigniors who did the carpenter work in constructing this union of states were idealists. They built a house that for the most part the people have since refused to live in as built, and have gone about fashioning and reshaping it as they wanted it. The builders laid down the framework of theory, and the people have shaped it into practice to suit themselves. The theory was that the people in the first place came together in their political gatherings and deliberated who among them were the wisest and best to be chosen as their legislators. Then these, when chosen, assembled to elect senators, among the other affairs on which they were to focus their wisdom. Naturally, so important an act should not be precipitately committed. There should be ample consideration and discussion of who, among the wiser wise men of the state, should be sent as its ambassadors to represent it in the national counsels. And so it was provided, lest some impetuous and indiscreet legislatures should act with unseemly and undignified haste, that the first two weeks after the assembling of the wise men of the state should be given to meditation, reflection and examination before they began expressing their choice.

"But, like all these beautiful theories, so easy to construct and so difficult to work out in practice, the fruition of the hopes of the builders never materialized, or so rarely as only to make the failure more general, because they had to depend on the human animal for the execution of their design, and the average man is not moved by high motives of patriotism, or possessed of the intelligence needed for the perfect execution of the design. So it came about in the practical working of the plan with its human motors that, instead of the people getting together and counseling wisely as to the best man among them for a lawgiver, some one man or more among them became seized with a desire to be a maker of laws and senators. And thus, instead of being a council, the gathering was simply the adherents of one or more of these seekers, by whom any suggestion of fitness was regarded as an impertinence.

"So it comes that the fittest man in any district is never chosen to be a legislator, and it too often occurs that not even a fit man is selected, although it is true that the man chosen regards himself as not only fit, but the fittest. Everything, my son, depends on the point of view in this life. Everything is relative. You will observe as you gain experience that we can elect people to office, but not to wisdom. The certificate of election carries with it no magic which makes the man a whit wiser or better or honester than he was before he received it. Everybody seems to think it does, and acts on that supposition, but it is a mistaken one. Some day some Bering or Roux may come who will discover some way of inoculating men with wisdom; but he isn't here yet.

"The same process goes on in the legislature that went on in the several fields in which the legislators strove and won. There is no deliberation among them as to the best and wisest and fittest man of the state, as the fathers assumed there would be. Sometimes some one man and sometimes several men have announced their wish to go to the senate. There is nothing highly improper in this, for it has been remarked that all these offices quit hunting men long ago; in fact, it is quite out of fashion now for offices to do this. But what will strike you as strange is that in the little fields of county politics, and as well in this larger senatorial field, the men and legislators feel somehow obligated to take their choice from among the men who say they want the place. I needn't tell you how modest real merit is, and how it waits yet to be recognized and called, and so it comes about that real merit is always waiting and never gets called.

"So in its workings the situation evolved is one in which the two preliminary and preparatory weeks are mostly given to what is termed logrolling, combinations made to gain some desired end for those in the combination in exchange for votes for this or that one of the aspirants. Sometimes less worthy motives influence the votes of men. It is said that there are those base enough to make this important duty a matter of bargain and sale, and credible stories are told of men who will not stay bought, but sell themselves again to some other bidder. But in it all the purpose of the fathers is defeated in the practical working of their plan, and there is a vast difference, my son, between the theory and the practice of senatorial elections."

Diversified Farming: Shall Wheat Continue King?

Who sells what he does not own is a short seller, a forestaller, a speculator and a dangerous person; but who harvests what he has not sown is—very often—a wheat farmer and an honest man. Certain it is that the present system of wheat farming in the Northwest is a pure speculation. A speculation, however, may be advisable, if the profit of success be extreme, or the risk of failure slight. It cannot be said that, in general, either of these statements is true of the wheat crop.

A very high price has for some years been exceptional, and the opening of new fields abroad, especially in the Argentine Republic, will doubtless tend to depress the average price, in the absence of war or famine.

The question of yield is equally uncertain. If a good crop were always assured, the farmer's risk would be lessened. But Minnesota is not Egypt. The agriculture of the Pharaohs was a self-regulated mechanism. The sunshine was permanent, while the soil and moisture were both renewed annually by the dutiful and systematic Nile. Thus a vast extent of the ancient world was fed from the corn, i. e., the wheat, of Egypt. Rome herself was long dependent upon her fruitful province.

Yet the farmer has neglected the manifold lessons of the Scripture who cannot recall an instance of the uncertainty of even the Egyptian wheat crop. Joseph was the first and the last man to issue a reliable market-letter. Had the agricultural constituents of that able politician been obliged to depend upon the prophets of Clark street or Mark lane, his internal policy would have been rebuked by a most appalling landslide, before the close of the seven lean years.

In the Northwest at the present day, moreover, the weather is as prolific of variety as of excellence. All that cannot be predicted is what will not happen. An attempt was one time made to curb this heterogeneous climatic generosity by the development of rainmakers. If successful, the latter would have been but an adjunct of our future socialistic government, together with the drouth inspector, the frost agent, and the solar commission. But, like evolution and the Baconian cryptogram, this pleasing possibility remains simply possible.

Yet, undoubtedly, wheat has been at times a source of great profit to the farmer. Its cultivation requires but little manual labor; and, above all, its choice is dictated by Fashion, a monarch whose domain is not confined to inflated sleeves and football hair.

For years the wheat-raiser thought he was wise, when he was only lucky. This has happened before. He forgot that every woman is a treasure while the honeymoon beams; every soldier a hero until bullets are received as well as forwarded. When, however, the lean kine made their appearance, it began to be felt that even King Wheat was no more invincible than King Cotton. When the world's immense crops began to depress prices, it was realized that, though the Northwest may be the best section of the earth, it is by no means all the earth, and its smaller crop is not necessarily followed by a higher price. The disappointment, the loss, the privation, that accompanied these discoveries, are familiar.

Meantime, in most other localities where wheat was not the only crop, the farmer continued prosperous. Even the late commercial depression has but little impoverished the agricultural communities of the Middle states.

The urgent necessity and evident advantage of diversified crops present themselves every day to the attention of the farming element in this section; and the GLOBE is indebted to some of the highest local authorities for the following able and convincing papers upon this essential reform.

OLIVER DALRYMPLE.

[The greatest wheat farmer in America.]

Thirty years ago, when I commenced growing wheat, the price in New York was $1.50, $1.25 in Chicago, and $1 on the Mississippi river. We are now striking a range of prices 40 to 50 cents lower. The reduction has been brought about by the opening of old and new countries to the great markets of the world by means of railroads; by the introduction of improved machinery; by the returning of the world more and more, from year to year, to a gold basis; by throwing the product into the great centers; and by the construction of immense storage houses, which show great stocks at all times.

Our chief competitors in the British market are Russia and South America, while India and Australia compete in a subordinate degree. In all those countries the American producer comes into rivalry, as he places his surplus in the British market, with the 10, 20, 30 and 40-cent laborer of the countries named.

The day of high-priced wheat, as a permanent thing, has passed by. Nothing but an exceptional and world-wide loss of crops can give higher-priced wheat again for any length of time. When wheat struck 50 cents in Chicago in 1894 it probably struck bedrock; because it reached the same price per pound, practically, as corn, oats and barley, and thus went into the great feed bin of the world, which absorbs ten bushels for live stock where one only is consumed when eaten by the human family. Whenever wheat declines to 40 cents in the country west of the Mississippi river, being superior to any other grain for animal food, it will go to market on foot, as corn has done for the last quarter of a century.

With reference to diversified farming, I will say that the best of farming in the best of wheat countries will not justify the wheat grower in seeding more than two-thirds of his land in any one year in wheat. The other one-third should be rested in summer fallow or its equivalent. Thus, no part of the farm will be taxed with more than two wheat crops in succession. It is an open question among the best farmers how the one-third of land thus left out should be treated to restore and keep up its fertility and clean it from weeds. Some good farmers cultivate this third with two summer fallowings and total rest. Some sow millet at the close of seed-time and plow under the millet before it heads out. Some put in a crop of timothy, and cut and plow early in July. Some cultivate thoroughly in corn or potatoes. All are good systems, but I would give the preference to the millet treatment.

No doubt the ultimate destiny of all kinds of farming is the diversified plan. By that I mean the raising of all kinds of live stock and the cultivation of all crops suitable to one's latitude; and the sooner this view of the question is understood and adopted by the farmers of the Northwest, the better their interest will be promoted individually and collectively.

The cheap and efficient creamery separator has increased the butter product and has promoted its manufacture with remarkable facility and success. If present prices can be maintained, this branch will become an important factor in diversified farming.

The original sources of wealth are the fields, the forests and the mines. The fields have taken and will retain the precedence. The facts that, in this great commercial and monetary crisis, the country is in better condition than the city; that the farm is a class of property which no financial cyclone can sweep away in a day, and that the cultivator of the soil, however humble or limited in his means, will remain his own master, will always have employment, and can always say, so far as his family is concerned, "Here is work and bread for all"—so long as these things are true will the farm be known as "real" estate, as against the fictitious estate, and so long will it be appreciated by the American people, and be the sheet anchor of our great population and business.

The history of this country has demonstrated that a period of hard times comes once in about twenty years, and lasts for four or five years. While farm lands and farm products have sympathized with the great shrinkage in values, their shrinkage has been less than that in the value of bonds, stocks, merchandise, etc. In this struggle of "the survival of the fittest" the agriculturist of our country should content himself and congratulate himself upon the staying qualities of his business and his property.

Oliver Dalrymple

O. C. GREGG,

[Superintendent of Minnesota Farmers' Institutes.]

In reply to the query which you propound to me as one of your contributors in this issue of your paper, I will give you some of the reasons why I would answer it in the negative in as short and concise a manner as I can.

It is very evident from the present outlook of the agricultural situation of the world, that the markets must, for some time at least, continue to show a low price for the wheat which has been and will be produced. This is mainly true because the wheat area of the world has been so rapidly extended, as in Russia and India, where the cheapest of the world's labor is engaged in producing it. The rapid extension of our railway system in America (both North and South), and in Europe as well, and the Indies, has opened to the world an unprecedented amount of wheat lands that are pouring their supplies upon the world's market.

It does not follow that Minnesota shall cease to grow wheat, but it does follow that she must grow wheat upon a different plan from that pursued upon the cheap lands and by the cheap labor referred to. Their method may be summed up in a few words, viz.: That by multiplying their acres they increase their product of bushels. We must on the other hand, increase the fertility of the acre, and so increase the bushels upon that acre; that means that we must first increase the fertility in the acreage of our wheat land. This only can be done by the means of clover growing and the introduction of some form of animal industry.

Wheat at the present prices does not pay the farmer for the raising it, when raised at the present average of bushels per acre, say from ten to fifteen bushels; but wheat would pay something to the grower, even at the present prices, when the crop is grown in rotation and has a high average of production per acre. Good farming in Minnesota will bring us a return of from twenty-five to thirty bushels of wheat per acre, and possibly higher. But wheat at the present prices does not pay as good a profit as other crops which can and should be grown. While it is true that Minnesota is naturally a good wheat state, it is equally true that it is as favorable to the production of corn and oats, barley, root crops and hay. I speak of the state as a whole, and there are but few exceptions to this statement in any parts of the state.

Oats is a much surer crop than wheat, and corn is rapidly extending the area where it can be grown with greater safety also. It does appear that barley is more favorably grown in the southeastern part of our state than in other portions. The intelligent farmer of today will base all of his farming operations upon some form of animal industry, as the dairy with the hog product as an adjunct, or sheep for mutton purposes, and in all probability the beef product will become a factor in the near future in our agricultural prosperity. Not only do the cash returns from these sources make a very substantial income that is not affected by the cheap labor and lands of other countries, but the fertility which goes to the soil as a consequence makes it possible for us to largely increase our crops per acre.

There are no objections in any of the natural conditions of soil or climate of our state which will hinder successful dairying, sheep raising and beef production, as already outlined. If the limits of this article would permit, we could give very substantial reasons, based upon a very large experience of men in our state, showing that the very climate of Minnesota, with all its cold, gives a measure of help to these pursuits. There is much prejudice concerning the cold of Minnesota being a hindrance to these forms of animal industry which has no foundation in fact.

We will close by stating that the farmers of Minnesota are facing a necessity which will compel us to stop the one-crop system of growing wheat alone. Not only will the markets compel, but the exhausted condition of our soils will also force such a change.

O C Gregg

PROF. THOMAS SHAW.

[Department Animal Husbandry, State College of Agriculture.]

The average yield of wheat in Minnesota could easily be increased fully 60 per cent by a judicious system of farming combined with stockgrowing. The means to adopt would include the following: First—Grow more hoed or cultivated crops, such as corn and mangels, and care for them properly. This will clean the land, and, as a result, the wheat crop will be greatly increased in yield. Second—Grow a larger proportion of other cereal grains, as oats, barley and peas. This will rest the land, or rather it will not be so severe on it, and it will also be less weedy, as these crops are not sown quite at the same time as wheat. Third—Adopt a rotation which will include grass or clover, more especially clover, to put vegetable matter in the land to feed the wheat and to bring moisture to it. Fourth—Grow live stock enough to consume all the crop grown on the land, and apply the manure as soon as possible after it is made. Fifth—The value of the wheat crop can be greatly increased to the farmer by feeding it to live stock. The extent of the increase in value will be gauged by his skill in feeding animals, and by the goodness of the animals. He will get for it all the way from 60 cents to $1 per bushel, not including the value of the manure.

The substitutes for wheat should include every kind of farm products that can be grown in Minnesota. Of these substitutes corn is perhaps the most important, but some persons would place clover first. Our farmers should grow oats, barley, peas, rye, millet, mangels, sorghum; in fact, everything that our markets call for, that live stock will eat and that our lands will grow in good form. And, so far as possible, everything grown upon the farm should be turned into meat, dairy products, eggs or wool before it is sold. The farmer then becomes his own manufacturer, and gets his profit for manufacturing the foods which he grows; and he has the by-product, the manure, to enrich his lands. But one farmer should not attempt to grow too many things, either as food for live stock or in the form of live stock.

These substitutes can be grown in all sections of the Northwest, where the soil and climate will raise an average crop of several of these products the same year. When the dry West country is reached, pasture will be the principal reliance. Cultivation there should not be general. Hay can be got in such arid lands in the valleys to feed the stock in winter. Corn, as a cattle food, can be grown in all parts of Minnesota where the soil is rich enough to grow it, and the joyful day is coming when it will be thus grown. Corn will yet be a great resource in nearly all parts of our state as a food for live stock.

The comparative value of such substitutes cannot be stated, except in an approximate way, the conditions varying so much. The combination of crops grown in any one locality, and the rotation of the same will depend upon the conditions of the soil and the climate; hence, they will vary much in different sections. So far as live stock is concerned, dairying, poultry and swine pay best at the present time. Potatoes are also a paying crop in many parts of this state, but where they are grown the land must be fed.

The farmer should fasten upon some one branch of live stock and make it his chief dependence. But where he is without capital, and probably without buildings and fences, he could only do this gradually. Poultry could be most cheaply introduced. Sheep would probably come next, or swine, and then dairying. Dairying and swine rearing go hand in hand. After dairying beef raising would be next in order. And, while the change was being made, such crops as beans, peas and other things which are now imported could be grown, as they always command good prices and a ready sale. And in other places good crops of clover seed could be made to bring in revenue.

I would add the following suggestions: The aim of every farmer should be to get large returns from small areas under cultivation, rather than moderate returns from large areas. By the former process he will make more money.

Every farmer should take care of his farm implements when not in use. The reckless waste of farm machinery in the Northwest is enough to bring the farming interest into serious trouble. The shameful process of burning manure and of carting it out into ravines to waste should be made a misdemeanor, punishable by law. The quality of the live stock should be greatly improved by using good, pure sires so far as practicable, and by giving better food and care. The profit from keeping it would thereby be greatly increased. When mixed husbandry gets in full headway in Minnesota, and when a judicious rotation accompanies it, the state will enjoy greater prosperity than it has ever hitherto known.

Thomas Shaw

HON. JOHN S. PRINCE.

In response to your request for a few suggestions as to farming and its specialties, let me say that there is no question that diversified farming is by far the best. Wheat cannot be successfully grown at its present price of 45 to 50 cents per bushel. In fact, there is no product, at the present prices, that will pay.

The farmer must cultivate less land, and do his own work. He cannot afford to employ labor at its present price. Farmers, as a rule, attempt too much, and cultivate too large tracts of land, and use too much machinery. They do not take proper care of their machinery after it is acquired, hence their expenses exceed their income. They must learn to be more economical, and to raise that which they can best dispose of in their own locality.

The extremely low price of poultry the past fall, as well as of all other products, is only equaled by the price of sugar—four cents per pound. When wheat sold at 80 cents and $1 a bushel, sugar was 10 and 12 cents, and so with all other things. When were dry goods as cheap as today? And will not the 50-cent wheat buy as much as the one-dollar article used to purchase? And are we not finding fault with the low price without making proper comparison with other low prices? These things all want to be considered fully in estimating our expense and cost of living.

John S Prince

PROF. WILLET M. HAYS,

[Department of Agriculture, State College of Agriculture.]

I see no encouragement to hope for materially larger prices for wheat. It is possible for wheat to drop to a lower price. Even at present, or at yet lower prices, many of our farmers of the Northwest will find wheat a profitable crop to use in rotation with other grain crops, and especially with grass and annual forage crops. During a recent trip through several Atlantic and Middle states I observed that much winter wheat had been sown. If these farmers will continue raising wheat on their higher-priced, leaner lands, where they must use commercial fertilizers, we may rest assured that the farmers of the Northwest are not going to abandon wheat. True, the wheat will be mostly raised by the general farmer, who finds that it fits in his rotations, and by the man who does not "hustle" himself to change to more profitable lines of farming. The farmer must be contented with more modest profits than were to be secured when war prices had an influence.

Special wheat farming will not pay except where the conditions are temporarily very favorable, as, for example, on new, rich Red river valley farms, or on new, rich bottom lands in other sections. Wheat as a part in diversified farming pays modest profits. The wheat crop fits in so nicely in the crop rotations that on large farms it can be raised very cheaply. We have no other spring grain with which we find it so handy to seed to grass, where we want to seed large areas to clover and timothy, or to a mixture of grasses for permanent pasture. Wheat alone does not pay most of the farmers who depend upon nothing but the summer fallow to keep the land in condition. This kind of farming does not pay nearly so well as would diversified agriculture. It requires more management, more planning of field rotations, more intelligent study of live stock questions, and is an all around more complex business to run a farm where several lines are dovetailed together. It is not so easy to farm in an "arms-length" manner as would suit the New York or Boston owner of his Red river valley farm. Diversified lines require an owner, a tenant or an employe who has his head in close touch with the work. One of our graduates recently illustrated this aptly by saying: "A farmer must work with his head in his hands, hand in hand, or head in hand." Smaller farms, ownership by the man who uses the machine and drives the team, the making of permanent homes by the man who studies at first-hand the business and science of farming, are some of the elements which must work together in developing our agriculture. Wheat will stay as one of the crops in sensible farm management, but low average yields and very low prices will result in the financial dwarfing of the people who try to do exclusive wheat raising.

There is no good reason in soil, labor, markets or other conditions, why a man should abandon wheat entirely. Some combination of a few other specialties, as dairying and pork, raising of beef cattle and horses, of horses, sheep and barley to sell, will, in the end, win better than will wheat raising alone. The wheat feature of the farm should gradually be reduced until it is only one of a few lines from which the farmer secures money in exchange for products.

All those heavier virgin soils of the Northwest, such as loams and modified tills, are very rich. Wheat farming depletes them, and in a few decades the best of them are badly impaired. Our poorer soils, such as thin sandy loams, gravelly soils, and even clays on hillsides, where not very much plant food has been stored up on account of the washing of rains, are seriously injured by cropping to wheat continuously for only a few or several years. The great fact that we need emphasized is that we should keep up and increase the fatness of our rich lands. They are a heritage that we should hold, cherish and improve for the future generations as sacredly as we should care for any interests of our children. It requires a rich country for the great, vigorous, courageous, moral and highly civilized people we wish our succeeding generations to be. We are handicapping them by depleting the soil.

The average yields of wheat will be greatly increased by growing it only on such lands as have been kept in good heart, and are especially prepared for wheat by the nature and cultivation of the previous crop. At the North Dakota experiment station several plats of wheat, following corn, potatoes and root crops, which had been cultivated and kept clean of weeds, yielded nearly double the crop that adjacent plats did which had borne wheat the previous year. All this land had previously been in wheat continuously for eight years. Wheat after clover, or after any grass crop, will find the soil in that compact mechanical condition which will enable it to thrive if the soil is not too lean. The husbanding and application of barn manures is, to the owner of rather light sandy soil, particularly necessary. The manure not only adds fertility to the land, but it is of great use in dry times in making the soil more retentive of moisture. Better varieties of wheat will help the yields. The Minnesota and Dakota experiment stations are testing a few hundred varieties of wheats, and, doubtless, some will be found or made by crossing and by selection which, when distributed, will help the yields. Our present yields of wheat are below what our soils, the climate, and the intelligence of our farmers would seem to justify, and great efforts should be made to increase them. More hogs, cattle, sheep, horses and poultry will be a good means of utilizing on the farm far greater quantities of corn, oats, rye, barley, grasses and clovers. The stock will not only bring in more clear profits, but will turn the crops back into the land in the shape of manure, providing care is used to husband the manure. Farmers, as a rule, do not nearly appreciate the manure from the crops they feed to stock. Barn manure applied rather thinly to rich lands does far more good to the entire farm than when applied thickly on a few acres. Most farmers have applied manure too thickly and to the wrong crops. A heavy coating of manure to rich lands for a crop of wheat causes the straw to grow too large and the heads to fill poorly, perhaps with shrunken grains. The manure should be applied to previous corn, potatoes, millet or other crop which will be benefited by the manure and get no injury. This gives time for the manure to rot and be of no injury to the wheat, while yet some of its fertilizing elements remain to be of use to the wheat.

Corn is a valuable crop for a modest or large place on the farm in every county in the state. In the southern half it is especially valuable as a grain and fodder crop combined. Far to the north it is one of the most valuable fodder crops, and even there some grain may be raised with the fodder, if smaller-growing varieties are found.

Oats and barley are valuable to all parts of the Northwest, and may be increased as the amount of stock increases. Rye is excellent some years, as it was last, and for the southern half of the state winter rye will generally yield well, though the dry fall has hurt the prospects for next year's crop. Clover is one of our most important crops, and the state should nearly double the amount sown each year for a few years. One of the most important lines of experimenting to be done in the state is to find good grasses and clovers. Farmers should experiment in a small way with these crops.

Wm Hays

GEN. C. C. ANDREWS.

Diversified farming means the raising of some other crop or crops besides wheat. With reasonable prices wheat-growing is the most attractive branch of farming, because it affords the farmer more leisure time than any other. In raising wheat the farmer harrows his field, sows the seed, and harrows it in just as early in the spring as the ground will admit. For the two following months or more, or until the latter part of July, when the crop is ready to harvest, he is not in the habit of doing anything more to it. After it is gathered and stacked he again, early in the autumn, plows the field; then comes the threshing and hauling to market, and the whole work of the crop is done. How different it is in such a branch of farming as the dairy, in which careful work must be done continuously every day in the year.

When a farmer is equipped for wheat raising and lacks the means for procuring the buildings and implements for successfully prosecuting some other branch of agriculture, it may be difficult, and in some cases impossible, for him to diversify. But it should not be difficult for him to change from wheat to potatoes or to corn and hog raising.

Still, successful raising of corn involves liberal manuring of the soil, which, again, requires live stock. The average yield to the acre among good farmers is thirty-five to fifty bushels of shelled corn—the yellow dent variety. Ten bushels of shelled corn will produce 160 pounds of pork, live weight. The average selling price of hogs, one year with another, is about four cents per pound, live weight. For profit they should be sold in the autumn, when seven to eight months old, and the best farmers make a net profit of about $5 per hog.

Diversified farming means a rotation of crops, which is essential to maintain and improve the fertility of the soil. The most simple rotation is wheat from one to three years, then corn with manure, then grass and pasturage, followed again by wheat. Another good rotation is wheat, oats, corn and then wheat. Still another is wheat, barley, oats, corn, grass. The best farmers practice a rotation of crops, and their average yield of wheat is about 20 bushels per acre, oats 42 and barley 33 bushels per acre. I know of many farmers in this state who average very good net profits from their business, and who are leading lives of independence, dignity and comfort.

Recently I have made some investigation of the sheep and dairy industries in Minnesota, from original sources, and have found the situation very promising. There are a number of sheep raisers in our state who are clearing an annual net profit of $1 per head of their flocks. Our climate is very favorable to sheep raising, but the industry is only slightly developed. Said Mr. Stevenson, an able English agriculturist of the British committee that visited Minnesota last summer: "There ought to be tens of thousands of fine flocks of sheep in Minnesota." A recent United States special report on sheep industry, while acknowledging Minnesota's great advantages for sheep raising, says that "there are more dogs than sheep in the state."

There are many dairy farmers in the state who are annually making a net profit of $30 per cow; and yet it is true that one-half of the cows in Minnesota do not pay for their keeping, being better suited for beef than for the dairy.

I suppose that 60 per cent of the farmers in Minnesota do not read any agricultural paper nor attend the lectures of the Farmers' institute. How then can useful and inspiring agricultural information be diffused among them? How can a desire for better methods be imparted to them and their energy be stimulated? We lack in Minnesota some things for the promotion of agriculture which they have in the New England states, and I would like to see an impartial and statesmanlike committee of the legislature appointed to investigate what ought to be done to promote agriculture in this state, and report at this session.

C. C. Andrews

A. B. STICKNEY.

[President Chicago Great Western Railway.]

Can wheat be profitably raised at the present market value? It depends upon how it is cultivated. If upon an exclusive wheat farm, where the value of the farmer's time and the cost of feeding his teams, the interest on the value of his farm and the interest and depreciation on farm machinery for the whole year must be charged against the cost of the wheat crop, and the land is so exhausted from continued crops that it produces only twelve or less bushels per acre—under such conditions a wheat crop, at present prices, will result in a loss, instead of a profit, to the producers.

On the other hand, if it is grown on a farm with other crops and with stock, so that the farmer's time can be completely utilized, where, say, only one-quarter of the value of the farmer's services, interest and depreciation, etc., is chargeable to the wheat crop, and the land is in such good condition, resulting from rotation of crops, fertilization and superior cultivation, as to produce thirty bushels per acre—under such conditions a wheat crop at present prices is profitable. Under a mixed system of agriculture, it does not cost so much to cultivate an acre as on a wheat specialty farm, for the reason that the different varieties of crops are not planted or harvested at the same period of the season, and thus the farmer utilizes more of his own labor and the labor of his teams, and the land will produce more wheat per acre, because, by keeping stock and rotating the crops, the lands are both "rested" and fertilized.

The history of agriculture proves that in the long run those sections produce the most profit where the farms are small and produce a variety of crops and live stock. The history of the southern counties of this state also proves this theory. A most reliable farmer living in Goodhue county told me a few days since that last year he raised thirty bushels of wheat per acre on land that a few years ago failed to produce six bushels per acre. This wonderful transformation was brought about by a few years of diversified farming. I asked him if his neighbors have had the same experience, and he said they have. His crops of oats, barley and flax were correspondingly large, and his dairy was equally profitable.

The profit in wheat raising depends upon the yield per acre, the cost of cultivation being substantially the same if the yield is ten or thirty bushels per acre. About 200 years ago the soil of England had become so exhausted by exclusive wheat farming that the average crop of wheat was only six bushels per acre. By a system of mixed farming and by fertilization the average has been raised and maintained for a century or more at about forty bushels per acre.

The farmers of Goodhue county are estimated to have over $1,500,000 deposited in banks, accumulated by diversified farming. In short, diversified farming, wherever practiced, has increased the yield per acre, the value of the land and the profits of agriculture.

A B Stickney

There is No Half-Way House.

Philadelphia Record.

If adequate protection mean enough protection to prevent the importation of taxed commodities, it becomes, under the pretense of an intent to get revenue, a means of extortion. On the contrary, if adequate protection mean nothing more than tariff duties sufficient to cover the difference in the cost of labor in this and in other countries, the latter-day protectionists in the United States will have none of it. The present tariff more than provides the measure of protection needed to make good the difference in wages; but it is denounced from one end of the country to the other as a free trade measure.

Let's Have Harmony.

Faribault Democrat.

Some Democrats, and good Democrats too, in the main, are anxious that all differences in the party be overlooked and all pull together as a harmonious whole for success. This is all right, providing the Democracy has no higher aim than success; but if Democracy means the adoption of Democratic principles, such as laid down by its platforms, then there can be no indorsement of opposing principles, and no harmony while they exist. The Democratic party cannot stand for McKinleyism and tariff reform; it cannot stand for fiat and honest money; it cannot stand for civil service reform and the theory that "to the victor belong the spoils;" it cannot stand for extravagance and economy, or for honesty and dishonesty.

THE BIRTH OF MUSIC.

What shall I sing? Shall music be my theme?
Some quiet, pulsing melody? Or shall it be
A glad outburst of harmony? Or yet a dirge
Of minor tones, that speak to you and me?

You choose the minor? Good! I sing to you
A cool and quiet melody that intertwines
And hides itself in chords, that, beckoning,
lead me to
Where sits the Muse of Song, whom Love
enshrines.

There, high above the blending of pure
tones,
I hear a voice that makes me think of higher things;
And makes me see my little worth, and self
dethrones;
And bids me only think of her who sings.

And who is she who chains me thus with
song?
I call her Love. Some—Power, given from
above.
Some others call her Art. But, list! They
all are wrong;
For Music first was wakened by Love.

—Thomas C. Yarnall.

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—AND—

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