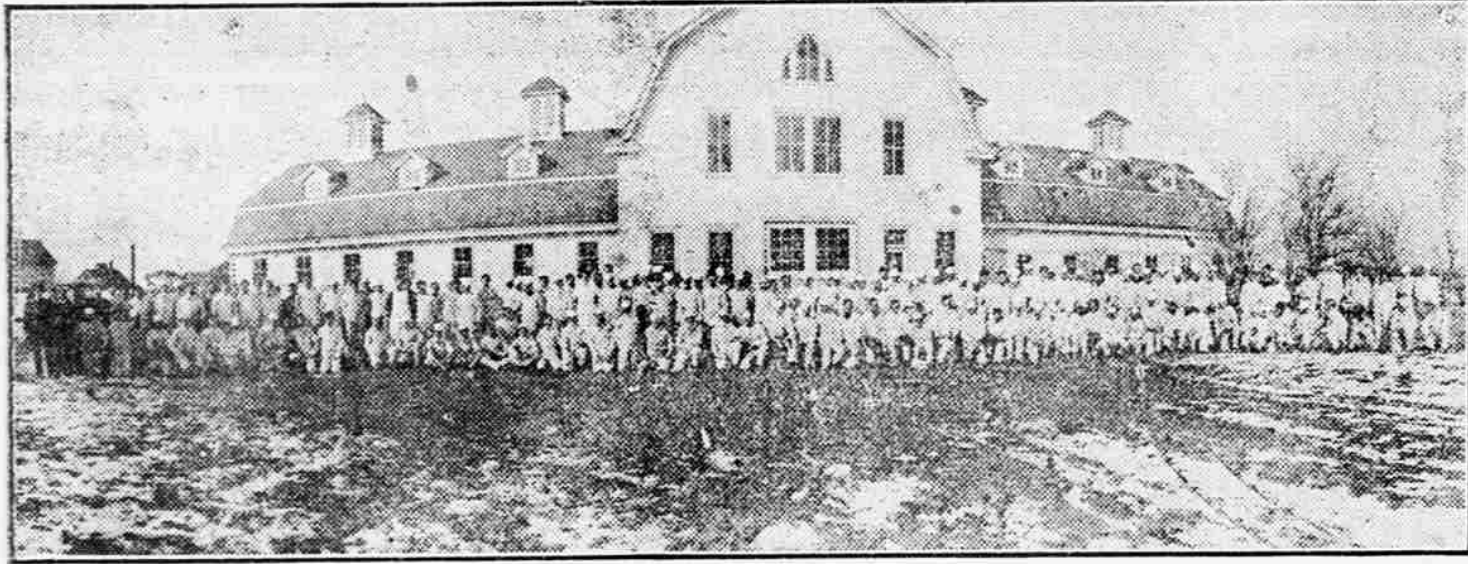


AGRICULTURAL EDUCATION IN NEBRASKA

(By Frederick M. Hunter, Principal School of Agriculture, University of Nebraska.)



CLASSES IN DAIRYING, SCHOOL OF AGRICULTURE, UNIVERSITY OF NEBRASKA.

NEBRASKA'S great industrial questions are strictly agricultural. Other states in the great Mississippi and Missouri valleys have Nebraska's great industrial questions are strictly agricultural. Other states in the great Mississippi and Missouri valleys have agricultural problems, too, but for none of them does every industrial question lead so directly to the farm and the man who lives on it as in our own state. Nebraska is a state of practically one resource—the farm. All our neighboring states, Kansas, Missouri, Iowa, South Dakota, etc., have large agricultural wealth. It is true, but in each of them other great interests, for example, mining and manufacturing, present their problems for popular attention.

The first phase of the industrial question in Nebraska, is "How shall we make our farming intensive?" Agricultural production in the United States is not now keeping pace with the rapidly increasing population. For generations past the continually increasing demand for agricultural products caused by the growth of population and the tilling of the seemingly almost inexhaustible supply of new farm land. But now the supply of tillable land in regions where climatic conditions make crops possible without the cost of irrigation has been almost exhausted. Yet the increase in our population has been greater than ever before. The great question is how to make our farms meet the increasing demand.

Not long ago a Nebraskan, very much interested in scientific farming, was traveling in France. He was a guest on one occasion at a rural home. The family of five members he had known slightly for some time in a business relationship. The home was one of luxury and almost affluence. They were investing money continually in American securities, chiefly stock bonds, and had at that time several thousand dollars invested in this way. Yet the only income of this family consisted of a farm of seven acres of "improved" French soil. This income according to the Nebraskan, was entirely typical of the intensive farming carried on in France, and such results were made possible by the French system of agricultural education.

The other phase of the problem which Nebraska must solve for herself is the improvement of rural conditions, so that the general cityward trend of the population from the older rural communities may be checked. It is true that the census of 1910 showed a small per cent increase even in the rural population of Nebraska. But this increase was due most entirely to the growth of western counties, where new land is yet being developed, and where rural conditions are as yet not in the least permanent. The more established rural communities showed the same decrease in population that was so manifest in Iowa and among all the older rural populations. The continuation and spread of this tendency is sure to bring disastrous results to our state and nation.

Nebraskans then are chiefly concerned with the questions of how to make farming to the highest degree productive, and how to make rural conditions so attractive, so that American rural life may continue to be, as in the past, one of the greatest factors in our civilization. The solution of these problems depends, in a great degree, upon the systematic organization and effectiveness of agricultural education. The first step in this solution is the organized process of accumulating scientific agricultural knowledge—or one might call it the working out of the science of agriculture. Great progress has already been made in this work. Experiment stations have been in operation for a considerable number of years in all the states and territories. Investigations in universities and colleges have gone far toward placing the various subjects which constitute agriculture upon a genuinely scientific basis. Federal laws and the United States department of agriculture have lent their aid in this first step of a great movement. The amount of scientific knowledge accumulated is far in advance of what the general actual practice will be for years to come.

But this knowledge is not in the possession of the masses of the people, and the great work of the future is to bring it to them. To do this means that we must make our educational

system really democratic—for it is not democratic, judged by its present day results. To do this means that we must have a system which gives to the future tiller of the soil both a broad culture and technical knowledge of his profession, for such it really must become.

To accomplish this purpose—of bringing to our farm populations of the future, both a broad education and a knowledge of the most up-to-date and scientific farming—we have no adequate educational system. We need an elementary school system for our rural districts which educates for the farm instead of away from it; which groups its instruction about agriculture and rural life as the central idea instead of about preparation for the classics and a professional career. We need in these rural schools teachers who are sympathetic with rural life and conditions and who know how to be leaders in these communities.

We need, too, a high school system which not only prepares for college and university education, but which gives a thorough, yet sane and workable training in the things which Nebraska boys and girls must do in life; a system which is capable of training young teachers to be leaders in our rural schools and communities. To really reach the masses of our young people and accomplish in them the twofold purpose I have named above, culture and technical training—which will solve the problem of our rural life—we must have the aid of both these great agencies—the rural schools and the high schools.

The University of Nebraska is seeking to lead in accomplishing this purpose. In addition to its efficient experiment station, it maintains the College of Agriculture organized as one of the great divisions of the university. This organization is of collegiate rank and admits students from accredited high schools. It seeks to train scientists and leaders in agricultural thought. In this college some three or four hundred young men and women are enrolled. These will graduate from the University of Nebraska at the end of four years with the degree of B. Sc.

In addition to this, the School of Agriculture is organized as one of the departments of the college. This school is of high school rank. It accepts pupils directly from the eighth grade, and in a four-year course gives a fairly good high school training and a thorough technical training in agriculture. The four-year course can be completed in two years by those who have had a three or four year high school education before registering. For young women the four-year course consists largely of home economics. It can be completed in two years also by those having a good high school education. The session of the four-year course is six months in length, beginning about Nov. 1 and ending about the last of April each year. In this institution some four hundred young men and women are registered. As in past years, about 90 per cent of these will go back to the farm and become leaders in the working out of Nebraska's industrial situation.

An additional winter course of six weeks is given each year for young farmers who cannot come in for the longer session. Some two hundred usually register for this course.

It will be noted that there are in all somewhat less than one thousand students who receive each year anything like an adequate training for a distinctly agricultural career—and this in a state whose only resource is agriculture. It is the great purpose of our university and of those who have at heart the future of our glorious commonwealth to bring the work of these institutions already established to an increasing number of our young people whose fortunes will be eternally bound to the life of the farm; and through the other agencies which are only beginning this great work to make it possible for every boy and girl to guarantee the future, not only a financial success, but in broad thinking and right living.

New Buildings for University Farm.
The university is advertising for the erection of a large fireproof building at the University farm, which is to house the departments of agricultural botany, horticulture, and entomology. These departments have been greatly crowded in recent years, especially horticulture and entomology, and this new building will furnish very greatly

needed facilities for the promotion of their work. It also contains a number of large class rooms, which are to be used for general school purposes. The building will stand on the site of the old horticultural building. The appropriation for this building is \$85,000, and it is hoped by the regents that the bids for the erection will come within the appropriation, so that work can proceed at once and the building be ready for use this year.

FEED FOR DAIRY COWS

One of the important conditions that cause the cow to give more milk during the early spring and summer is that she obtains succulent feed. To maintain a good flow of milk during the winter some form of succulent feed should be given.

By the term succulent feed is meant one having that property possessed by green grass. Such feed has a value outside of the actual nutrients it contains, on account of its favorable effect on the digestion of the animal. There are two methods in use for supplying this food during the winter season. One is the use of root crops and the other is the use of silage. In some parts of the world the use of root crops is almost universal, and is the solution of the problem. In this state the use of silage is far more practical, however, than the use of root crops, and for that reason it is recommended exclusively for this purpose.

There is no way in which the corn crop can be better used to advantage than by putting it into the silo. More feeding value can be obtained from an acre of corn fed in this way than in any other condition. Silage is palatable, and cattle relish it as part of the roughage.

In feeding silage it must not be expected that it will be sufficient as the only roughage. Hay should be fed in addition. The hay that goes well with silage to make a balanced ration is clover, alfalfa or cowpea hay. From 30 to 45 pounds per day is counted a reasonable feed of corn silage. It can be fed to almost any stock.

SHORT COURSE BEGINS

The winter course of the School of Agriculture opened as usual on Jan. 2 and furnishes the best of opportunities for farmers' boys and young farmers who can spare the time for a month or six weeks to study practical agricultural problems under expert teachers. The instruction includes a study of field crops, the judging of corn and other grains, a study of soil management, horticulture, etc. In the live stock department attention is given to the feeding of live stock, the judging of horses, cattle, and swine and practical methods of maintaining a live stock farm. Instruction is given in dairying and in animal diseases. The operation and management of farm machinery is also studied, with a view of fitting the student to make a better selection of the machinery purchased, to take better care of that now on hand, and to operate farm machinery with the greatest economy and success.

Lectures are given in farm management dealing with the organization of the business of the farm, the methods of conducting farm operations, and a study of profit and loss under different methods of farm management. The winter course has always drawn a large number of young farmers who wish to practice the most up-to-date methods, and those who have been in attendance have greatly appreciated the advantages which were offered by this course.

The meetings of organized agriculture at the University farm will open this year on Jan. 15, with the Association of Agricultural Students. On Tuesday the Corn Improvers' Association, the State Board of Agriculture, the Improved Live Stock Breeders' Association, and the Horticultural society will hold sessions. On Wednesday, the 17th, all of the above named societies, together with the Nebraska Farmers' congress and the Dairymen's association, will be in session. Most of these societies continue through Thursday, and a number of them hold meetings on Friday. It is reported that the governor's reception will be held on Tuesday evening, Jan. 16. At the general meeting on Wednesday evening Mr. Will B. Otwell of Illinois will speak. Mr. Otwell is reported to be one of the finest platform orators in the west on agricultural subjects.

All creditors of the estate of Oscar M. Matthews, deceased, are notified that the County Judge of Red Willow County, Nebraska, will on July 19th, 1912, sit to examine all claims against said state with a view to their adjustment and allowance. The time limited for presentation of claims against said estate is July 18th, 1912.

(Seal.) J. C. MOORE,
County Judge.
ITCHIE & WOLFF, Attorneys.

Notice.

To the creditors of the estate of Carrie M. Farnsworth, deceased.

You are hereby notified that the time for filing claims against said estate expires June 29, 1912, and that the county judge of Red Willow county, Nebraska, will sit on the first day of July, 1912, at the hour of nine o'clock a. m. to examine all claims against said estate, with a view to their adjustment and allowance.

Dated December 23rd, 1911.
(Seal.) J. C. MOORE,
County Judge.
C. E. ELDRED, Attorney.

ADVERTISEMENT FOR BIDS.
Notice is hereby given that the county commissioners of Red Willow county, Nebraska, will receive sealed bids for the furnishing of the following supplies to said county during the year 1912, to-wit:

- Class No. 1, Books.
- One Personal Tax list, 1913.
- One Real Estate Tax list, town lots 1913.
- One real estate tax list, farm lands 1913.
- One loose leaf mortgage record.
- One 6-qr. medium treasurer's cash book.
- 7000 tax receipts, original and duplicate, per thousand.
- 2 dozen chattel mortgage files, gummed stubs, numbered, each.
- 23 sets primary election poll books (Tally sheets for all parties and registers of voters, all combined in one book) per books.
- 23 sets general election poll books, per book.
- 92 poll book envelopes, per dozen.
- 45 ballot sacks, per dozen.
- 225 primary election "Instructions to Voters," per 100.
- 225 general election "Instructions to Voters," per 100.
- 5000 assessors' schedules, punched and attached, per 1000.
- 27 assessment schedule binders complete.
- 25 assessors' personal assessment books.
- Printed books for records, perquire.
- 24 primary election laws.
- 24 general election laws.
- Loose leaf record blanks, printed form, per 100.
- 1911 statutes, per book.
- All records to be full bound, extra ends, bands and fronts and to be made of Bureau Western 35 lb. manila heavy paper.

- Class 2, Legal Blanks.
- Size 8 1/2x28, printed two sides, per first 100, and each additional 100.
- Size 8 1/2x28, printed one side, per first 100, and each additional 100.
- Size 8 1/2x14, printed two sides, per first 100, and each additional 100.
- Size 8 1/2x14, printed one side, per first 100, and each additional 100.
- Size 8 1/2x7, printed two sides, per first 100, and each additional 100.
- Size 8 1/2x7, printed one side, per first 100, and each additional 100.
- Size 8 1/2x5 1/2, printed two sides, per first 100, and each additional 100.
- Size 8 1/2x5 1/2, printed one side, per first 100, and each additional 100.
- Postal cards, printed, per 100, including cards.

- Class 3, Stationery, 1.
- Senate pads, 8 1/2x14, per package of 10.
- Senate pads, 4x7, per package of 10.

- Writing fluid, Carter's, Sanford's, Stafield's, Arald's, Banker's, per quart.
- Lead pencils, E. Faber, No. 2, per gross.
- Lead pencils, Memphis, No. 77, copying, per dozen.
- Election pencils, per gross.
- Velvet pencils, rubber tips, 557 per gross.
- Venus copying pencils, No. 165, per dozen.
- Typewriter carbon paper, best grade, 8 1/2x14, per dozen.
- Typewriter ribbon, best grade.
- Typewriter paper, best grade, heavy, medium, light, per ream.
- Mucilage, best grade, per quart.
- Pen holders, cork tip, bank, each.
- Pens, Esterbrook, Glimcum, Silver Series, per gross.
- Rubber bands, No. 18, No. 16, No. 30, per gross.
- Blotting paper, best grade, per pound.

- Class 4, Stationery, 11.
- Memo heads, 6x9, 7 pounds, flat paper, per 1000.
- Letter heads, size 8 1/2x11, 10-pound bond paper, per 1000.
- Letter heads, size 8 1/2x11, 12-pound flat paper, per 1000.
- Envelopes, printed, No. 6 1/2, No. 1 rag paper, per 1000.
- Envelopes printed, No. 10, No. 1 rag paper, per 1000.
- Bar dockets, 4 1/2x7 1/2, per page.
- Notices of election, per 100.
- Sample and official ballots for primary and general election for 1912, including precinct changes and rotating, per 100.
- Claim blanks, per 100.

- Class 5, Legal Notices, Commissioner Proceedings and Delinquent Tax List.
- Publishing legal notices, per square.
- Publishing commissioner proceedings, per square.
- Publishing delinquent tax lists.
- Separate bids must be furnished on each one of the 5 sections, or any one of them.
- All supplies must be furnished as ordered.
- Bids are to include all freight, express, postage, or drayage charges and must be for articles delivered free of charge at court house.
- Bids must be addressed to "County Clerk," and marked proposal for books, blanks, stationery and legal printing," or any one or more of these items.

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All successful bidders must file good and sufficient bond for the faithful performance of their contract.

Bids will be opened according to law, at the regular meeting of the county board, January 9th, 1912.

Sealed bids will be received at the county clerk's office up to noon, January 9th, 1912.

The county commissioners reserve the right to reject any and all bids and to enter into separate contract for each one of the five sections advertised.

Dated at McCook, Nebraska, December 7th, 1911.

CHAS. SKALLA,
County Clerk.

A Resolution declaring the intention of the Mayor and Council of the City of McCook, Nebraska, to refund Fifty Thousand Dollars of the out-standing water bonds of said city bearing date June 15th, 1908, and directing public notice to be given of such intention all in accordance with sections 11279-11282 of Cobbe's Annotated Statutes of Nebraska for 1911, and repeal all resolutions and parts of resolutions in conflict herewith.

Whereas, the City of McCook, Red Willow County, Nebraska, by and through its duly authorized officers did, on the fifteenth day of June, 1908, pursuant to authority granted by chapter 14 of the Compiled Statutes of the State of Nebraska for the year 1907; by an ordinance of the City of McCook passed by said Council and approved by the Mayor of said city May 25th, 1908, and numbered 142 of the ordinances of said city; and by a vote of two-thirds of the legal votes of said City of McCook, Nebraska, cast for and against the proposition at an election duly held for that purpose in said city April 7th, 1908, issue eighty-five thousand dollars in bonds, known and designated as "Water Bonds," in denominations of five thousand dollars each, numbered one to seven hundred and fifty, and with proceeds realized from sale of said refunding bonds take up and pay off, or make an exchange for the said outstanding unpaid "Water Bonds" in the aggregate sum of fifty thousand dollars, and in no event shall said refunding bonds be sold for less than par; and that the proper tax levying authorities of the City of McCook, and Red Willow county, Nebraska, be and hereby are authorized and directed to levy and collect annually a general tax in such amounts as will be sufficient for the payment of the principal and interest of said refunding bonds until fully paid, in the same manner as other municipal taxes are levied and collected on all the taxable property now within, or that may in the future be within, the corporate limits of the City of McCook, Red Willow County, Nebraska, such fund to be known as the "Refunding Water Bond Fund" and to be used for no other purpose than the payment of the principal and interest of said "Refunding McCook City Water Bonds." Said bonds so issued shall be signed by the Mayor and attested by the City Clerk of said city, and the seal of said city shall be affixed thereto.

Wherefore, it is ordered that any tax payer of said city may file objections to the validity of said bonds or the proposed action relating to the said refunding, on or before Saturday evening, January 13th, 1912, at six o'clock p. m., standard central time, in the office of the City Clerk of said city in the regular place of meeting of said City Council, to-wit: in the Water Commissioner's office in the basement of the library building on the west half of block ten in the original town, now city, of McCook, Nebraska. If no objections are filed at that time, the City Council of said city will, at eight o'clock p. m. standard central time on Saturday, January 13th, 1912, at said regular meeting place of said Council, order the refunding bonds heretofore described to be issued in accordance with, and by virtue of, the powers granted by sections 8865, 11279, 11280, 11281 and 11282 of Cobbe's Annotated Statutes of Nebraska for 1911 and it is further ordered that said City Clerk is hereby directed to give public notice of this action and of the date on which and the place where, any tax payer of said city may file objections to such proposed action, by publishing a copy of this resolution for two weeks in the McCook Tribune and the McCook Republican, two legal newspapers printed and of general circulation in said city and by posting up a copy of said resolution on the door of said building in which such corporate authorities hold their stated meetings. Any and all resolutions and parts of resolutions in conflict herewith are hereby repealed.

Whereas, there are no funds collected in any fund levied for the purpose of paying said "Water Bonds" in the aggregate sum of fifty thousand dollars, or in any other fund of said city with which said "Water Bonds" in the aggregate sum of fifty thousand dollars, can be paid, nor are there any sufficient levies made or in process of collection out of which said ten "Water Bonds" may be

paid and cancelled, Therefore, it is Resolved by the Mayor and Council of the City of McCook, Red Willow County, Nebraska: That said city by and through its Mayor, Council and Clerk issue one hundred coupon bonds of five hundred dollars each numbered from one to one hundred which bonds shall be known as the "Refunding McCook City Water Bonds" in the sum of fifty thousand dollars, dated January 15th, 1912, bearing interest at the rate of five per cent interest per annum payable semi-annually on the 15th day of July and the 15th day of January in each year, and evidenced by coupons attached to said bonds. One twentieth of said bonds, numbered one to five inclusive, in the aggregate sum of \$2,500 shall be absolutely due and payable on the 15th day of January, 1913, and one-twentieth of said bonds, to-wit: five of said bonds in the order of their regular consecutive numbers and in the aggregate amount of \$2500 shall be absolutely due and payable on the 15th day of January, of each and every year thereafter until and including the date when the five bonds numbered ninety-six to one hundred inclusive shall become absolutely due and payable, to-wit: the fifteenth day of January, 1932; said bonds and interest and the coupons thereto attached to be payable at the banking house of Kountze Brothers in the city of New York, U. S. A.; and with proceeds realized from sale of said refunding bonds take up and pay off, or make an exchange for the said outstanding unpaid "Water Bonds" in the aggregate sum of fifty thousand dollars, and in no event shall said refunding bonds be sold for less than par; and that the proper tax levying authorities of the City of McCook, and Red Willow county, Nebraska, be and hereby are authorized and directed to levy and collect annually a general tax in such amounts as will be sufficient for the payment of the principal and interest of said refunding bonds until fully paid, in the same manner as other municipal taxes are levied and collected on all the taxable property now within, or that may in the future be within, the corporate limits of the City of McCook, Red Willow County, Nebraska, such fund to be known as the "Refunding Water Bond Fund" and to be used for no other purpose than the payment of the principal and interest of said "Refunding McCook City Water Bonds." Said bonds so issued shall be signed by the Mayor and attested by the City Clerk of said city, and the seal of said city shall be affixed thereto.

Therefore, it is Resolved by the Mayor and Council of the City of McCook, Red Willow County, Nebraska:

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Wherefore, it is ordered that any tax payer of said city may file objections to the validity of said bonds or the proposed action relating to the said refunding, on or before Saturday evening, January 13th, 1912, at six o'clock p. m., standard central time, in the office of the City Clerk of said city in the regular place of meeting of said City Council, to-wit: in the Water Commissioner's office in the basement of the library building on the west half of block ten in the original town, now city, of McCook, Nebraska. If no objections are filed at that time, the City Council of said city will, at eight o'clock p. m. standard central time on Saturday, January 13th, 1912, at said regular meeting place of said Council, order the refunding bonds heretofore described to be issued in accordance with, and by virtue of, the powers granted by sections 8865, 11279, 11280, 11281 and 11282 of Cobbe's Annotated Statutes of Nebraska for 1911 and it is further ordered that said City Clerk is hereby directed to give public notice of this action and of the date on which and the place where, any tax payer of said city may file objections to such proposed action, by publishing a copy of this resolution for two weeks in the McCook Tribune and the McCook Republican, two legal newspapers printed and of general circulation in said city and by posting up a copy of said resolution on the door of said building in which such corporate authorities hold their stated meetings. Any and all resolutions and parts of resolutions in conflict herewith are hereby repealed.

Passed by the City Council of the City of McCook, Nebraska, this 22nd day of December, 1911, and approved by the Mayor on the same date.
JAMES McADAMS, Mayor.
Attest:
L. C. Stoll, City Clerk.
(City Seal.)
First publication Dec. 25, 1911.