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RURAL LIFE BOOKS IN DIVISION LIBRARY

It is the plan of the Division of Agricultural Education to establish in the office of the division, a library for students and teachers interested in secondary agricultural education. Several publishing houses which were notified of the plan have already forwarded books for this library. The following is a list of those received to date:

ANIMAL HUSBANDRY

Productive Swine Husbandry, Day, G. E. Lippincott \$1.50.
Productive Horse Husbandry, Gay, C. W. Lippincott \$1.50.
Farm Animals, Hunt, T. F., and Burkett, C. W. Orange Judd Co. \$1.50.
Productive Poultry Husbandry, Lewis, H. R. Lippincott \$2.00.
Success With Hens, Joos, Robert. Forbes & Co. \$1.00.

AGRONOMY

Soils and Crops, Hunt, T. F., and Burkett, C. W. Orange Judd Co. \$1.50.

HORTICULTURE

Productive Vegetable Growing, Lloyd, J. W. Lippincott \$1.50.
Productive Orchardng, Sears, F. C. Lippincott \$1.50.
The Backyard Farmer, Bolte, J. W. Forbes & Co. \$1.00.

FARM MECHANICS

Home Waterworks, Lynde, C. J. Sturgis & Walton Co. \$1.00.
Electricity For the Farm and Home, Koester, Frank. Sturgis & Walton Co. \$1.00.

FARM MANAGEMENT

Farm Management, Boss, Andrew. Lyons & Carriahan. 90c.
Making the Farm Pay, Bowsfield, C. C. Forbes & Co. \$1.00.
Wealth From the Soil, Bowsfield, C. C. Forbes & Co. \$1.00.

GENERAL AGRICULTURE

High School Agriculture, Mayne, D. D. and Hatch, K. L. American Book Co. \$1.00.
Fundamentals of Farming and Farm Life, Kyle, E. J. and Ellis, A. C. Chas. Scribner's Sons. \$1.25.
Productive Farming, Davis, K. C. Lippincott. \$1.10.
Practical Agriculture, Wilkinson, J. W. American Book Co. \$1.10.
Elements of Agriculture, Warren, C. F. Macmillan Co. \$1.10.

ELEMENTARY AGRICULTURE

New Elementary Agriculture, Bessey, C. E.; Bruner, Lawrence; Swezey, G. D., and others. University Publishing Co. 60c.
Elementary Agriculture, Nida, W. L. A. Flannagan & Co. 60c.
Sixty Lessons in Agriculture, Buffum, B. C., and Deaver, D. C. American Book Co. 80c.
Agriculture for Common Schools, Fisher, M. L., and Cotton, F. O. Chas. Scribner's Sons. \$1.00.
First Principles of Agriculture, Goff, E. S., and Mayne, D. D. American Book Co. 80c.

FICTION

Joe, the Book Farmer, Harris, Gerard. Harpers. \$1.00.

GENERAL

Fights of the Farmer, Snyder, Alva. Lippincott. \$1.20.
One Thousand Questions in Agriculture. A. Flannagan & Co. 25c.

FARM ARITHMETIC

Farm Arithmetic, Burkett, C. W., and Swartzel, K. D. Orange Judd Co. \$1.00.
A Practical Arithmetic, Stevens, F. C., and Butler, Tait. Charles Scribner & Sons. 65c.
Farm Accounts, Smith C. W., and Thomas, S. M. Laurel Book Co.

EDUCATION

Agricultural Education in the Public Schools, Davis, B. M. University of Chicago Press. \$1.00.
The Work of the Rural School, Eggleston and Bruere. Harpers. \$1.00.

NATURE STUDY

Handbook of Nature Study, Comstock, A. B. Comstock Publishing Co. \$3.25.
Natural History of the Farm, Needham, J. G. Comstock Publishing Co. \$1.50.
Notes on Birds, Comstock A. B. Comstock Publishing Co. 30c.
Notes on Trees, Comstock, A. B. Comstock Publishing Co. 30c.

RURAL SOCIOLOGY

Constructive Rural Sociology, Gillette, J. M. Sturgis & Walton Co. \$1.60.

Quaker Hill, Wilson, W. H.
The Evolution of the Country Community, Wilson, W. H. Pilgrim Press. \$1.25.

The Church of the Open Country, Wilson, W. H.
The Church at the Center, Wilson, W. H. The Presbyterian Department of Missionary Education.

MANUAL TRAINING

Work Shop Note Book, Green, G. G. Manual Arts Press. 25c.
Essentials of Woodworking, Griffith, I. S. Manual Arts Press. \$1.00.
Occupations for Little Fingers, Sage, E. and Cooley, A. M. Charles Scribner's Sons. \$1.00.

CHEMISTRY

A Practical Chemistry For High School Students, Cook C. G. D. Appleton & Co.

SCHOOL PLOT TROUBLES

Progress Sometimes Lost Through a Change of Instructors

Trouble in the use of the school plot has been caused by frequent changes of instructors. This arises in part from the fact that new instructors come into the field with no clear, definite plans as to the use of the plot, such work not yet having been standardized. Naturally, when a new man replaces another, he has often no understanding of how to take up and carry out the work left by his predecessor. So he starts things off in a new way and the progress made by his predecessor is lost to the school.

To avoid such difficulties, a definite plan for the plot, covering several years should be made and definite records kept from year to year. These records should consist of carefully drawn maps showing location, size of plots, and crops for successive years; of written reports covering the results obtained from each plot with suggestions for the next year; and of an account of receipts and expenditures. They should be definite enough to enable a new man to take up the work at any time and carry it on.

The plot must be owned or held under a long-term lease to be able to meet these conditions successfully. Changes in the outlined plan can be made from time to time as experience shows the desirability of change. The important thing is a definite plan on which to build.

The plot is related in two ways to high school agricultural work. In one relation it is an extension proposition, in the other it is an instrument for high school instruction, a laboratory in which to exemplify practices discussed in the farm crops and horticulture classes, and from which to draw laboratory material.

It is from the viewpoint of the plot as an extension proposition that the greatest complaint has arisen. Often the farmer views it with disrespect because he thinks of it as a toy farm and of its demonstrations as not being done under farm conditions. Again it has been difficult to secure enough attention from farmers to make the demonstrations useful. There is not much doubt that in extension work the demonstrations can be more economically carried out and will have a greater influence if done on a farm by a farmer under the advice and direction of the instructor in agriculture. Cooperation with the farmers will relieve the school of much of its labor problem and will enhance the interest of the farmers in the demonstration. The easiest way to settle this trouble will be to regard the plot as a school laboratory and to place stress on this function rather than on that of extension uses.

Another charge against the plot is that it is expensive to maintain. The value of the plot should not be measured in terms of cash profits any more than other school laboratories should be so measured. On the credit side of the account should be entered the educational value to the school. Definite reports from about forty schools maintaining plots indicate that nearly one-half of the plots are returning a cash profit, while others are giving cash returns equal to the expenditures. About an equal number show a deficit in their accounts. In several cases this is due to some unusual condition. One school reports receipts nearly three times as great as its expenditures. In practically every case where profits are reported, a portion of the plot has been devoted to pure-bred seed, which is sold. On plots indicating losses a large number of small plots have been carried, and little done with pure seed production. Pure seed production and the carrying of a few projects at a time have given the best financial returns. Financial loss is generally not a necessary accompaniment of the school plot.

MINNESOTA BULLETINS FOR STATE'S TEACHERS

The Visitor ventures to suggest that, when possible, Minnesota bulletins be made the basis of the work in high schools where bulletins are used. These bulletins are prepared with Minnesota conditions in view. This is an important consideration, especially for instructors who have been prepared in colleges outside of Minnesota. A list of the bulletins available for distribution, which are of interest to teachers of agriculture with some indication of the character of each, follows:

DAIRYING

The Care and Management of the Dairy Herd. Extension Bulletin 10. Treats of the general problems of the farm dairy herd.

The Keeping of Dairy Cow Records. Extension Bulletin 29. Outlines a system of sampling, testing and weighing the milk of each cow, and of recording results.

Investigations in Milk-Production. Station Bulletin 140. Outlines the results of investigations from 1902 to 1909.

The Cost of Minnesota Dairy Products. Station Bulletin 124.

Feeding Dairy Cows. Station Bulletin 130. T. L. Haecker's Feeding Standards and management of the dairy cow.

DISEASES OF LIVE STOCK

Tuberculosis of Cattle. Extension Bulletin 32. A description of symptoms, spread, and suppression of the disease.

Hog Cholera. History, cause, spread, preventive treatment. Extension Bulletin 27.

Some Internal Parasites of Domestic Animals. Extension Bulletin 51. Description, life history, prevention, and treatment of some common internal parasites.

Dourine. Extension Bulletin 48. A description of symptoms and treatment. Barnyard Sanitation. Extension Bulletin 44. Deals with barnyard sanitation, some of the common diseases, and parasites.

MEAT PRODUCTION

Bundle-Corn and Beef Production. Extension Bulletin 34. Describes a method of continuous cropping of corn used for beef production.

Pork Production. Extension Bulletin 7. Deals with breeding, feeding brood sow, care of young pigs, fattening, marketing, shelter, diseases, and other topics related to pork production on the farm.

DRESSING AND CURING MEATS

Mutton. Extension Bulletin 45. Killing, dressing, and cutting up of carcass. Dressing and Curing Meats on the Farm. Extension Bulletin 11. Directions for dressing hogs, beef, and veal, with methods of curing corned beef, salt pork, hams, and bacon.

Sausage Making. Extension Bulletin 53. Directions for making various sausages. Dressing and Marketing Veal and Poultry. Extension Bulletin 31.

POULTRY

Studies in Egg-Marketing. Station Bulletin 132. A statement of the general methods prevailing in the marketing of eggs.

Egg-Marketing. Extension Bulletin 36. A condensed form of Station Bulletin 132.

Marketing Eggs From the Farm. Extension Bulletin 30. Deals with the factors entering into the successful marketing of eggs from the farm.

The Care and Management of Poultry. Extension Bulletin 21. A brief treatment of the housing, breeding, breeds, feeding, incubation, brooding, fattening, dressing, and shipping of poultry, including chickens, ducks, geese and turkeys.

FARM MANAGEMENT

Farm Management. Station Bulletin 125. The planning of business organization, fields, farmstead, and crop rotation of the farm, rotation experiments, and the teaching of farm management.

Cost of Horse Labor. Extension Bulletin 15. Cost of maintenance and factors in economical use of horse labor.

Land Clearing. Station Bulletin 134. Clearing stumps from cut-over lands.

FARMERS' ORGANIZATIONS

Farmers' Clubs. Extension Bulletin 46. A Statement of the work of farmers' clubs, method of organization, form of constitution, by-laws, and order of business, and plan of operation.

Coöperative Creameries and Cheese Factories. Extension Bulletin 42. Method of organization, articles of incorporation, and by-laws.

FARM STRUCTURES

Two Types of Silos at Northwest Experiment Farm. Extension Bulletin 41. Deals with silo construction.

Model Farm Houses. Extension Bulletin 52. Plans for farm dwellings.

Lighting With Alcohol and Kerosene. Station Bulletin 126. An analysis of the efficiency of kerosene and alcohol in portable lamps.

FARM MECHANICS

Rope and Its Use on the Farm. Station Bulletin 136.

Some Knots and Splices. Extension Bulletin 33. Deals with useful splices, knots and applications on the farm.

The Preservative Treatment of Fence Posts. Extension Bulletin 40. Deals with the general problem of supplying posts for farm fencing, as well as with methods of preservation.

MANUAL TRAINING

Woodworking Exercises for the Agricultural School Shop. Station Bulletin 135. A short discussion of tools and materials, and a list of woodworking exercises.

CEREALS

Minnesota Wheat Investigations, Series I. Station Bulletin 131. A technical discussion of wheat-production in Minnesota and the milling and baking qualities of wheat as affected by various factors. Series III. Station Bulletin 143. A study of the composition and quality of spring and winter wheats. Flax Growing. Extension Bulletin 27. A discussion of flax as a Minnesota crop.

Seed Grain. Extension Bulletin 26. Deals with selection and handling of seed-grain and with varieties adapted to Minnesota.

Selecting and Storing Seed Corn. Extension Bulletin 9. Discusses how to select, what to select, and storage of seed corn.

FORAGE CROPS

Annual Pasture, Soiling and Hay Crops. Extension Bulletin 25. Describes various crops and mixtures.

Clover. Extension Bulletin 47. Relation to soil, varieties, securing a stand, making of hay, pests, seed crop.

Alfalfa-Growing in Minnesota. Extension Bulletin 49. Soil relation, varieties, inoculation, liming, selection of soil, and preparation of seed bed, culture and growing of alfalfa.

Establishing the Orchard. Extension Bulletin 23. Deals with the establishment and care of the orchard in Minnesota.

Strawberries and Bush Fruits For the Farm. Extension Bulletin 16. Describes planting and care of fruits under Minnesota conditions.

The Farm Vegetable Garden. Extension Bulletin 17. General care of farm garden with description and method of growth of desirable vegetables.

Potato-Growing in Minnesota. Extension Bulletin 38. Description of methods to be employed from preparation of soil and seed to marketing, with a mention of varieties.

The Seed Potato Plot. Extension Bulletin 50. The selection of a seed plot, preparation of seed, and methods of seed selection.

Potato Diseases. Extension Bulletin 35. Description of diseases found on Minnesota potatoes, with means of control.

Selection and Preparation of Land for Cranberry Culture. Station Bulletin 142. Of interest in sections where cranberry culture is possible.

WEEDS

Minnesota Weeds, Series I. Station Bulletin 129. Deals with identifications and eradication of weeds common to Minnesota.

Minnesota Weeds, Series II. Station Bulletin 139. A continuation of Station Bulletin 129.

Seed Laboratory Report for 1910 and 1911. Station Bulletin 127. Purpose and methods in seed-testing, with results of tests.

The Minnesota Seed Law. Extension Bulletin 39. An explanation of the Minnesota Seed Law and its administration.

Seed Testing. Extension Bulletin 24. Directions for home tests for purity and germination.

PLANT DISEASES AND INSECTS
The Smuts of Grain Crops. Station Bulletin 122. Descriptions and life histories of smuts and methods of treatment.

The Smuts of Grain Crops. Extension Bulletin 14. Directions for dealing with smuts in Minnesota.

A study in Cereal Rusts. Station Bulletin 138.

Flies and Their Control. Extension Bulletin 43. Deals with the house fly, horn fly, biting stable fly and horse bot fly.

The Acrididae of Minnesota. Station Bulletin 141. Technical.

SOILS

The Relation of Different Systems of Crop Rotation to Humus and Associated Plant Food. Station Bulletin 128. Technical.

The Rotation of Crops. Station Bulletin 109. Report of the influence of rotation and of continuous cultivation

as shown in 10 years' work with 44 plots.

Soil Tillage. Extension Bulletin 20. Implements, methods and purposes of tillage.

Farm Drainage. Extension Bulletin 13. The general problem in Minnesota.

The above bulletins may be obtained by addressing the Office of Publications, College of Agriculture, St. Paul, Minn.

NEWS

Supt. F. E. Lutton of the Detroit city schools is the newly elected president of the Becker County Agricultural Society.

Mr. A. C. O'Banion, who resigned the position of Agricultural instructor at Pine Island to take up work at East Grand Forks, has been succeeded by Mr. McKinsley, a graduate of Ames.

Of the Agriculture instructors, J. P. Shea, of Hutchinson, W. J. Corwin, of Grand Rapids, A. L. Peterson, of Argyle, and Donald Wilson, of Mantorville, were University Farm visitors during Farmers' and Homemakers' week.

Stewart Leaming, agricultural instructor at St. Peter, has resigned to become county agent in Nicollet county. Charles Kellehan, a graduate of the College of Agriculture, University of Minnesota, has been elected to the vacant position.

Guy S. Ellis, of Stewartville, presented a paper on "School Credit in Agriculture for Home Work," at the meeting of the Southwestern Minnesota Educational Association, January 29. The agricultural department of the Stewartville high school is offering credit for home work.

Another pork production contest has been completed at Canby under the direction of B. Ostrolenk, agricultural instructor in the Canby high school. A public spirited citizen of Canby gave 100 in prizes. Seven boys enrolled.

an average profit of \$42.91 per sow in addition to the profit allowed the farm by paying market price for all feed without cost of hauling.

At a recent meeting of the Board of Directors of the Minnesota Educational Association, a Department of Industrial, Domestic, and Fine Arts was created. Professor A. V. Storm was elected president of the new department and will have charge at the next meeting of the association. The department will include six divisions as follows: Agriculture, Music, Drawing and Design, Commercial Education. Each division has officers of its own and each will hold separate meetings for the discussion of technical questions.

At least one general meeting of the department will be held. The program for this meeting will be general in its scope.

The Wayzata high school is holding a number of farmers' special days. They began in December, and will continue through February. These are in addition to a regular short course of eight weeks. The subjects for the different days are: Horses; Soils and Their Management; Poultry and Bees; Corn; Fruit-Growing, and Vegetable-Gardening, for the men, and Home Sanitation; Textiles, Cooking for Invalids and Convalescents, and Home Furnishings, for the women. All the meetings begin at 1:30 p. m. but on Friday, February 12, an all day session was held. For that day those attending brought basket luncheons. The domestic science department served hot dishes at noon in addition.

At the Jackson school the animal husbandry class, under the direction of O. G. Bovay, has made its study of breeds of cattle concrete by extended trips among surrounding farms. Some of the boys in the class provided automobiles for transportation. After a preparatory discussion of a breed, an afternoon was spent making a first-hand study of animals. In this way Angus, Hereford, and Shorthorn cattle were studied. It was necessary to travel a greater distance to find the dairy breeds, so these breeds were discussed first, and then an all day trip was made. The county agent acted as a guide. One farmer visited was able to give the boys the cost and production of each cow in his herd. One good-looking cow in the herd cost more to keep and returned two-thirds less milk than an inferior-appearing cow. Three herds visited were being tested for advanced registry and were also in a testing association. Following the trip, time was given for a discussion, and, finally, essays were required on things observed during the day.

The work is proving of decided value.