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### Bulletins of Interest to Agricultural Instructors

1. Laws relating to fur-bearing animals, 1916. Farmers' bul. 783, U. S. dept. of agr. Oct. 19, 1916. Fur-bearing animals Game laws
1. Game laws for 1916. Farmers' bul. 774, U. S. dept. of agr., Washington, D. C. Oct. 1916. Game laws
- 1.1 Report of agriculture in the high schools of Michigan. Bul. 16, dept. of agricultural education, agricultural college, East Lansing, Mich. Aug. 1916. Agricultural education. High schools
- 1.4 Canaries, their care and management. Farmers' bul. 770, U. S. dept. of agr. Dec. 1916. Birds
- 1.4 How to attract birds in N. W. United States. Farmers' bul. 760, U. S. dept. of agr. Oct. 1916. Birds
- 3.11 Yields of different varieties of corn in Illinois. Bul. 191, agr. exp. sta., Urbana, Ill. Aug. 1916. Peas—see also Field peas Field peas
- 3.21 Commercial varieties of alfalfa. Farmers' bul. 757, U. S. dept. of agr., Washington, D. C. Oct. 1916. Alfalfa, Varieties
- 3.31 Observations on some degenerate strains of potatoes. Bul. 422, agr. exp. sta., Geneva, N. Y. July, 1916. Potatoes. Diseases and pests
- 4.1 Sprays and spraying. Bul. 187, agr. exp. sta., College Station, Texas. March, 1916. Fruit culture. Spraying Spraying materials Spraying
- 4.11 The use of lime-sulfur as a summer spray for apple scab. Bul. 85, agr. exp. sta., Moscow, Idaho, Feb. 1916. Fruit culture. Spraying Spraying materials Apples. Spraying
- 4.11 Growing cherries east of the Rocky Mountains. Farmers' bul. 776, U. S. dept. of agr., Washington, D. C. Dec. 1916. Cherries
- 4.2 Lessons on tomatoes for rural schools. Bul. 392, U. S. dept. of agr., Washington, D. C. Aug. 1916. Tomatoes. Study and teaching
- 4.3 Roses for the home. Farmers' bul. 750, U. S. dept. of agr., Washington, D. C. Sept. 1916. Roses
- 5.0 Marketing of woodlot products. Bul. 302, agr. exp. sta., Wooster, Ohio. Aug. 1916. Farm woodlot
- 6.0 Rye smut. Bul. 160, agr. exp. sta., St. Paul, Minn. Aug. 1916. Rye. Diseases and pests Smut
- 7.4 Sheep raising. Ext. Cir. 49, agr. exp. sta., State College, Pa. Sept. 1916. Sheep. Feeding Wool, pp. 55-62 Sheep. Care and management Sheep. Diseases and pests, pp. 25-38
- 7.4 Fattening lambs. Bul. 186, agr. exp. sta., College Station, Texas. March, 1916. Sheep. Feeding
- 7.5 Feeding for egg production. Cir. No. 3, agr. exp. sta., Moscow, Idaho, May, 1916. Poultry. Egg production Poultry. Feeding
- 7.6 The production coefficients of feeds. Bul. 185, agr. exp. sta., College Station, Texas. Feb. 1916. Feeding farm stock Nutrition
- 8.2 The care of milk and cream on the farm. Cir. 63, agr. exp. sta., Madison, Wis. Aug. 1916. Milk
- 8.2 Influence of plane of nutrition of the cow upon the composition and properties of milk and butterfat. Res. bul. 25, agr. exp. sta., Columbia, Mo. Nov. 1916. Cattle. Dairy. Feeding Nutrition
- 10.1 Insect pests of the orchards and gardens of Idaho and their control. Bul. 87, agr. exp. sta., Moscow, Idaho. Feb. 1916. Spraying materials Fruit diseases and pests Fruit culture. Spraying San Jose scale, p. 3-5 Codling moth, p. 7-10 Tent caterpillar, p. 12-13 Aphid, p. 17-18 Potato beetle, p. 23 Cabbage worm, p. 25 Cutworms, p. 26
- 10.1 The bedbug. Farmers' bul. 754, U. S. dept. of agr., Washington, D. C. Oct. 1916. Bedbug
- 11.1 Successful farm organization. Bul. 142, agr. exp. sta., Columbia, Mo. June, 1916. Farm management
- 11.1 Suggestions for parcel post marketing. Farmers' bul. 703, U. S. dept. of agr., Washington, D. C. Jan. 1916. Marketing Parcel post
- 11.2 Rural clubs in Wisconsin. Bul. 271, agr. exp. sta., Madison, Wis. Aug. 1916. Clubs. Farmers
- 12.1 Tile drainage. Bul. 188, agr. exp. sta., College Station, Texas. April, 1916. Drainage. Tile
- 12.2 A farmer's poultry house. Cir. 62, agr. exp. sta., Madison, Wis. July, 1916. Poultry houses
- 7.1 Feeding pure-bred draft fillies. Bul. 192, agr. exp. sta., Urbana, Ill. Dec. 1916. Horses. Feeding
- 7.3 Castration of young pigs. Farmers' bul. 760, U. S. dept. of agr. Nov. 1916. Swine. Care and management
- 7.5 Lessons on poultry for rural schools. Bul. 464, U. S. dept. of agr. Dec. 30, 1916. Poultry. Study and Teaching

### SUPERVISORS SHOULD BE STATE OFFICERS IN CLOSE SYMPATHY WITH FARMING

Authority Is Necessary But Advice Should Be Suggestive Rather than Arbitrary

The agricultural instructors, at their spring meeting, adopted a resolution relating to inspection of the high school agricultural departments. Because of this action of the association, the Visitor quotes from a report on such inspection adopted at the last meeting of the Association of American Agricultural Colleges and Experiment Stations. "At the present time in 28 states there is practically no supervision of the subject, aside from a somewhat perfunctory general high school inspection, or as in six states, a purely local supervision. In six states supervision is by the colleges of agriculture, in six by agricultural specialists attached to the state departments of education, and in eight jointly by the colleges and the state departments.

"Where supervision is under regular high school inspectors it is not often satisfactory even to the departments of education. Several of the state superintendents of public instruction say that vocational inspectors or specialists in agriculture should be provided to supervise agricultural courses.

"Where there is supervision by agricultural specialists or where supervision is jointly arranged for by the state departments of education and the colleges of agriculture, it is quite generally reported as satisfactory. One of the most satisfactory arrangements is where the supervisor is an officer of the state department but is an agricultural specialist and has his office at the college of agriculture.

"Supervision of such a subject as agriculture, with its many local variations and applications should be more suggestive and advisory than arbitrary, hence the importance of having supervisors who are broadly trained in agriculture, who, for example, can appreciate the importance of emphasizing dairying in one section and horticulture in another, and who can suggest ways of mapping out courses which will permit of such local emphasis without seriously disturbing the balance of the whole course.

"But there should be enough of arbitrary authority to meet the exigencies arising in local school organization and for this reason the supervisors should be officers of the state departments, where authority rests. On the other hand, there should always be close sympathy with agriculture and up-to-date-ness of information, suggesting close connection with the colleges of agriculture."

- 7.5 Poultry Husbandry Demonstrations, ext. bul. 145, Oregon agricultural college, Corvallis. Nov. 1916. Poultry. Diseases and pests. pp. 4-6 Eggs
- 7.5 Fourth annual international egg laying contest. Bul. 87, agr. exp. sta., Storrs, Conn. Sept. 1916. Egg laying contests
- 7.6 Net energy values for ruminants. Bul. 142, agr. exp. sta., State College, Pa. July, 1916. Nutrition
- 8.1 Feeding dairy calves in California. Bul. 271, agr. exp. sta., Berkeley, Cal. Sept. 1916. Cattle. Dairy. Feeding, see Calves, Feeding
- 8.1 Computation of dairy rations. Bul. 143, agr. exp. sta., State College, Pa. Aug. 1916. Calves. Feeding
- 8.1 Feed an economic dairy ration. Wisconsin bankers' farm bul. no. 40, Milwaukee, Wis. Nov. 1916. Cattle. Dairy. Feeding
- 8.1 Judging Dairy Cows. Bul. 274, agr. exp. sta., Madison, Wis. Oct. 1916. Cattle. Dairy. Judging
- 8.1 Judging the dairy cow as a subject of instruction in secondary schools. Bul. 434, U. S. dept. of agr., Nov. 1916. Cattle. Dairy. Judging
- 8.1 Skimmilk and milk substitutes for calf feeding. Bul. 193, agr. exp. sta., Lafayette, Ind. Sept. 1916. Calves. Feeding
- 8.2 The marketing of Wisconsin butter. Bul. 270, agr. exp. sta., Madison, Wis. June, 1916. Butter. Marketing
- 8.2 Cream testing balances. Bul. 189, agr. exp. sta., Lafayette, Ind. July, 1916. Cream. Testing
- 8.2 Cooling cream on the farm. Bul. 188, agr. exp. sta., Lafayette, Ind. June, 1916. Cream. Cooling
- 10.1 The San Jose scale. Bul. 214, agr. exp. sta., Manhattan, Kansas. Sept. 1916. San Jose scale Fruit. Diseases and pests Spraying. pp. 18-28
- 10.1 Grasshopper control. Farmers' bul. 747, U. S. dept. of agr. Oct. 1916. Grasshopper. See Locusts Locusts
- 10.1 Common cabbage worm. Farmers' bul. 766, U. S. dept. of agr. Nov. 1916. Cabbage. Diseases and pests Cabbage worm Cabbage butterfly, see Cabbage worm
- 10.1 The fall army worm or grass worm, and its control. Farmers' bul. 753, U. S. dept. of agr. Nov. 1916. Army worm
- 14.1 Homemade fireless cookers and their use. Farmers' bul. 771, U. S. dept. of agr. Dec. 1916. Fireless cookers
- 12.5 Keep our hillsides from washing. Bul. 272, agr. exp. sta., Madison, Wis. Aug. 1916. Soil erosion Soil washing. See Soil erosion

### INSTRUCTION IN GARDENING

Encouraged by the Division of Agricultural Education of Agricultural College

The Division of Agricultural Education in the College of Agriculture has been able for the last year through its work in supervised teaching to cooperate closely with the schools of South St. Paul in supplying a great amount of instruction in gardening. Lessons of thirty minutes each are given weekly in each room. The work began last fall and about two hundred pupils in the fifth, sixth, and seventh grades have taken it. Weeds, soil, insects, plants, and garden operations have been studied. The garden as the place for application of the studies has been in mind throughout the year. No reasons have been given why the pupils should personally have a garden. However, in papers prepared by about 200 of the pupils on the topic, "All My Reasons Why I Want a Garden," sixteen reasons were mentioned. The leading five, given by both boys and girls, are:

1. To raise food for the home.
2. To produce things for the school exhibit for a prize.
3. To raise vegetables to sell.
4. To find proper employment for time.
5. To improve conditions about the home premises.

### Home Project Bibliography

- Added emphasis is being given to project work as a part of the teaching of agriculture in Minnesota high schools. Teachers of agriculture are urged to acquaint themselves with the proper methods of dealing with this type of work and to incorporate it as a definite part of the instruction. To aid those who wish information concerning this work, a bibliography covering material now available, other than articles in periodicals, is given:
- Agricultural Project Study. Bulletin 4, 1912. Whole number 8.
- Project Study Outlines for Vegetable Growing. Bul. 5, 1912. Whole number 9.
- Agricultural Project Study Bibliography. Bul. 6, 1912. Whole number 10.
- State Aided Vocational Agricultural Education in 1912. Bul. 3, 1913. Whole number 22.
- Project Study Outlines for Vegetable Growing. Bul. 9, 1913. Whole number 23.
- State Aided Vocational Agricultural Education in 1913. Bul. 3, 1914. Whole number 32.
- Poultry Keeping Project Study Outline. Bul. 7, 1914. Whole number 36.
- State Aided Vocational Agricultural Education in 1914. Bul. 3, 1915. Whole number 40.
- State Aided Vocational Agricultural Education in 1915. Bul. 5, 1916. Whole number 54.
- Information Relating to the Establishment and Administration of County Agricultural Schools and Agricultural Departments. Bul. 23, 1916. Whole number 72.
- All of the above are published by the Massachusetts State Board of Education, Boston.
- Agricultural Education Through Home Projects: The Massachusetts Plan. Published by the Manual Arts Press, Peoria, Ill.
- Agricultural Education in Secondary Schools, University of the State of New York. Bul. 624, 1916. Albany, N. Y.
- Schools of Agriculture, Mechanic Arts and Homemaking. University of the State of New York. Bul. 597, 1915. Albany, N. Y.
- Agriculture in the High Schools. University of the State of New York. Bul. 563, 1914. Albany, N. Y.
- Suggestions for School and Home Projects in Agriculture. University of Wisconsin. Bul. 757, High School Series No. 16, 1916. Madison, Wis.
- Home Projects in Agriculture for Michigan High Schools and School Credits. Michigan Agricultural College, Department of Agricultural Education. Bul. 17, Nov. 1916. East Lansing, Mich.
- The Use of Land in Teaching Agriculture in Secondary Schools. U. S. Dept. of Agr. Bul. 213, 1915. Washington, D. C.
- The Massachusetts Home-Project Plan of Vocational Agricultural Education. Bul. No. 8, 1914. Whole number 579. U. S. Bureau of Education, Washington, D. C.
- School Credit for Home Practice in Agriculture. U. S. Dept. of Agr. Bul. 385, 1916. Washington, D. C.
- Home Projects in Secondary Courses in Agriculture. U. S. Dept. of Agr. Bul. 346, 1916. Washington, D. C.
- Agricultural Teaching (Papers presented at the Fourth Annual Meeting of the A. A. A. T.) U. S. Bureau of Education, Bul. 27, 1914. Whole number 601, 1913. Washington, D. C.
- Home Projects in School Agriculture. Extension Bul., 1913. College of Agriculture, Urbana, Ill.
- Supervised Home Project Work. State Board of Education, Educational Bul. 19, 1917. Indianapolis, Ind.
- The Use of Land in Connection with Agricultural Teaching in Special Agricultural Schools, and Use of Land in Connection with Agricultural Teaching in High Schools. U. S. Bureau of Education, Bul. 522, 1913. Washington, D. C.
- Use of Land by High Schools Teaching Agriculture. U. S. Bureau of Education, Bul. 601, 1914. Washington, D. C.
- Plans and Records of Home Project Instruction. National Society for the Promotion of Industrial Education. Bul. 22, 1916. 140 W. 42nd Street, New York City.
- Field Projects. New Hampshire Department of Public Instruction. Bul. 56, 1916. Concord, N. H.
- Agriculture in the High Schools. Department of Public Instruction, 1917. Madison, Wis.
- Courses in Agriculture for the Secondary Schools of Texas. State Dept. of Education, and University of Texas, Joint Bulletin 1, 1914. College Station, Texas.
- Agricultural Education for Teachers. Bricker. Chapters 13 and 14. American Book Company. 1914.
- Materials and Methods in High School Agriculture. Chapter XII. Hummel. The Macmillan Company. 1913.

### AGRICULTURAL TEACHERS WANT STATE TO INSPECT THEIR WORK IN SCHOOLS

Systematized Summer Urged in Resolutions Adopted at Spring Meeting

The following resolutions were adopted by the Minnesota Association of Agricultural Instructors of Secondary Schools at the business meeting, Saturday, March 31, 1917.

Whereas: In view of the fact that some dissatisfaction has arisen on the part of some school boards in reference to the summer work of the Agricultural instructor, due in part, perhaps, to a lack of understanding on the part of the school board as to the nature of the work in the summer, and in part to the neglect of the instructors in presenting to the school board a comprehensive summer program and regular reports as to the work, and

Whereas: A danger to the future success of the work of the agricultural instructor may result from this lack of understanding, in that sufficient pressure may be brought to bear on the State High School Board and State Legislature to cause the term of service of the agriculture instructor to be changed from twelve months to nine months. And

Whereas: Such a procedure would result in a serious handicap to the most efficient extension and community work,

Be it resolved, First: that some means be adopted for systematic reports on the summer extension work of the agricultural instructors and that such reports be sent to the superintendent of schools, the school board, and the State High School Board.

Be it resolved, Second: that to bring about more efficient instruction in agriculture and to increase cooperation with the Department of Agricultural Education, of the College of Agriculture, University of Minnesota, we recommend thoro inspection of high school agriculture by a well-qualified and experienced state leader and inspector.

Third: that as one of the most valuable and instructive lines of extension work is through boys and girls in club work and home projects, it is most earnestly urged that this feature of extension work be among the first aims of the high school agricultural instructor and that in order to carry this out most successfully, full cooperation with the state leader of boys' and girls' clubs be constantly sought.

Fourth: that it is recognized among all agricultural instructors that the Visitor, the monthly publication of the Department of Agricultural Education, has a prominent place in promoting better agriculture and more efficient agricultural instruction, and

That we wish heartily to recommend the publishers for the help given through the publication. It is urged that better cooperation be given by the agricultural men by furnishing such news pertaining to the work in their localities and schools, as may be published in the Visitor.

Fifth: that competitive contests in stock- and grain-judging among students from various high schools adds to the interest and aids in stimulating better agriculture. In view of the value of this work, we recommend that plans shall be made for district judging contests and that winning schools in the district shall be brought together for a state contest.

Sixth: whereas, the public press of the state and the agricultural papers in particular, offer us an efficient means of conveying to the public knowledge of the work we are doing in our several communities and since these agencies are anxious and willing to cooperate with us more fully in these things, we hereby resolve to make more use of these factors in the future and to cooperate with them in every possible way to further the cause in which we are engaged.

Seventh: realizing the grave and critical situation in which our nation is placed at this moment and our opportunity to be agricultural leaders in our several sections, and believing it is important to properly conserve the production of agricultural products at this time, therefore

Be it resolved: That as the Association of Agricultural Instructors we pledge ourselves to work toward the conservation of our agricultural resources; to endeavor to reduce wasteful practices in farm and farm home operations; to strive to increase production of all forms of food materials on the land within our territory; to urge the maintaining of all herds and flocks in sufficient numbers to provide for future needs; and in such other ways as possible to lend our support to our Government in any crisis which may arise.

Eighth: whereas, the faculty of the College of Agriculture have spent their time to make this meeting interesting and profitable, therefore, be it resolved by this Association that we extend our

### INSTRUCTORS NAME OFFICERS

Association of Agricultural Men Choose G. S. Ellis for President

The Minnesota Association of Agricultural Instructors, at the seventh annual meeting held at University Farm, March 29-31, elected the following officers:

G. S. Ellis, Rochester, President  
J. F. Hedgcock, Albert Lea, Vice President

Verne Steward, Caledonia, Secretary  
S. A. Colliver, Sandstone, Treasurer  
These officers will take up their duties following the meeting of the Minnesota Educational Association, the old officers having charge of the agricultural program of the 1917 meeting.

### RESULTS OF INSTITUTE

Cow Testing and Poultry Associations Formed at Redwood Falls

Through the effort of the agricultural department of Redwood Falls, F. L. French, director, two organizations were formed during the two-day farmers' institute held there March 13 and 14. The organizations are the "Redwood County Cow-Testing association," and the "Redwood County Poultry association."

The purposes of the cow-testing association is to add to the dairy interest of the county by enabling the farmers to test their herds and thereby weed out the unprofitable animals. The work will be started as soon as the condition of the roads will permit. The purpose of the poultry association is to further the interests in poultry raising by the holding of an annual poultry show sometime during January or February.

Both organizations are new to the county, but from the interest shown there is no question about their success.

### NEWS

E. J. Trosper, for the last three years agricultural instructor at Lake City, has resigned. Mr. Trosper becomes manager of the Northeast Missouri Dairy Development association, under a three year's contract. He left May 7 to begin his new work. Harold Reynolds, of Kansas, has been employed in Mr. Trosper's place.

Frank L. Gerten has resigned the position of agricultural instructor at South St. Paul to engage in dairy farming. Arthur J. Souba, class of '17, of the College of Agriculture, is Mr. Gerten's successor.

Richard Lewis, Forest Lake, has accepted employment with the Capitol National Bank in farm loan work. Charles Partridge, class of '17, College of Agriculture, is in charge of the agricultural work at Forest Lake for the rest of the year.

John F. Mueller, class of '17, College of Agriculture, is filling the position of agricultural instructor at Kasson, left vacant by the resignation of L. H. Theurwacter; and Hjalmer A. Nelson, of the same class, has succeeded James Kline, resigned, at Detroit.

The high school agricultural department of Mantorville, Donald Wilson, director, has carried out a spring campaign to interest the farmers in the work of the department. A circular letter has been sent out inviting the farmers to make use of the department in various specified ways, such as starting an accounting system, listing stock and seed for sale or to be purchased, testing seed, and spraying orchards.

Books for Industrial Teachers

Dairy Farming, Eckles, C. H. and Warren, G. F. Macmillan, \$1.10.  
Seat Weaving, Perry, L. D. Manual Arts Press, Peoria, Ill. \$1.00.

thanks to these men and further show our appreciation of their efforts by endeavoring to cooperate with them more fully in their work throughout the state during the coming year than we have in the past.

Ninth: whereas, we are deeply indebted to E. M. Phillips, John Munroe, W. J. Corwin, M. H. Reynolds, Carlyle Campbell, C. P. Bull, F. O. Jacob, Robert Ashby, Francis Jager, E. Dana Durand, D. D. Mayne, W. K. Dyer, E. E. Bauman, Dan A. Wallace, Professor James and Professor Goddard for their valuable assistance and suggestions in this program, we wish to express our gratitude and appreciation to them for the suggestions and inspiration they have given us.

Tenth: whereas, the officers of this Association have faithfully and conscientiously performed their duties during the last year and have given us one of the most profitable programs possible, we, as an Association, commend them upon their good work and hereby pledge our support to the newly elected officers.