

THE VISITOR

Devoted to the Interests of Agricultural Education in Minnesota Schools

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FUTURE FARMERS OF AMERICA



The above figure represents the insignia of the Future Farmers of America. It is destined to find frequent use in the literature dealing with the activities of the Minnesota Association of Future Farmers of America. The insignia is made up of four symbols which have the following meaning: (1) the plow, representing tillage of the soil, the basis of modern agriculture; (2) the owl, representing wisdom; (3) the rising sun, representing progress; (4) the cross section of an ear of corn, representing common interest in agriculture.

Local chapters may secure a cut like the one shown above if they wish to have it for use in local publicity work. The price is two dollars and it may be secured through the state advisor.

Membership

According to the state constitution of the Minnesota Association of Future Farmers of America, students who are enrolled for instruction in agriculture in the all day schools or in the part time schools are eligible for membership. Former students may become associate members. Girls who are bona fide students in vocational agriculture classes, are eligible for membership on the same basis as are boys.

State Aided Departments

According to the Constitution of the National Association of Future Farmers of America chapters can be organized in schools where a department of agriculture is maintained in accordance with the standards of the National Vocational Education

Act of 1917. This means that state aided departments are not privileged to organize a chapter and affiliate directly with the National Association of Future Farmers of America. If the farm boys enrolled for instruction in agriculture in the state aided departments desire to avail themselves of some of the opportunities afforded the boys in the vocational departments, they may form a local chapter that meets the standards maintained by the Minnesota Association of Future Farmers of America. The chapters in the state aided departments may be affiliated with the state association as subsidiary chapters. If any of the state aided departments change over to a vocational department, the chapter will be granted a charter and transferred to membership in the Minnesota Association of Future Farmers of America.

Creed of a Future Farmer

The following which has been accepted in several states as the creed of the members of the Future Farmers of America is expressive of the meaning of membership in the organization:

"I believe in the future of farming, with a faith born not of words but of deeds—achievements won by the present and past generations of farmers; in the promise of better days through better ways, even as the better things we now enjoy have come up to us from the struggles of former years.

"I believe that to live and work on a good farm is pleasant as well as challenging; for I know the joys and discomforts of farm life and hold an inborn fondness for those associations which, even in hours of discouragement, I can not deny.

"I believe in leadership from ourselves and respect from others. I believe in my own ability to work efficiently and think clearly, with such knowledge and skill as I can secure, and in the ability of organized farmers to serve our own and the public interest in marketing the product of our toil. I believe we can safeguard those rights against practices and policies that are unfair.

"I believe in less dependence on begging and more power in bargaining; in the life abundant and enough honest wealth to help make it so—for others as well as

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THE STAFF

A. V. STORM
A. M. FIELD

D. D. MAYNE
V. E. NYLIN

myself; in being happy myself and playing square with those whose happiness depends upon me.

"I believe that rural America can and will hold true to the best traditions in our national life and that I can exert an influence in my home and community which will stand solid for my part in that inspiring task." A. M. F.

Bibliography for Elementary Science

Many teachers of agriculture have the responsibility of either teaching the elementary science and agriculture to the students in the upper grades or to direct the work of other teachers. One of the major problems is to select appropriate reference materials. It seems desirable to select the reference materials on the special problem basis rather than to gather a large number of references of a general nature. As an aid to this end Mr. J. S. Benner, Teacher of Science, Edison High School, Minneapolis, has prepared the following list of references as suggestive of the books and bulletins that should be helpful in science work for the grades.

A. M. F.

ELEMENTARY SCIENCE REFERENCE LIST

J. S. Benner

Plans for teaching agriculture and elementary science in the grades should place much emphasis on the interest of the pupil and the forming of contacts with the local problems. The environment of the pupil should be paramount and should be used as a guide to the selection of problems for study. This makes a cut and dried program entirely out of place. Pupils' interests are so varying that no one person can or should be expected to be able to answer all their questions. If there is appropriate reference material at hand the pupil may be guided to find things for himself. Where to get good

reference material, what is best, and what gives the greatest value for the money are among the ever present problems. Many bulletins on various nature subjects may be obtained from the Division of Publications at University Farm and from the United States Department of Agriculture at Washington. The Turtox High School Biology Catalog and Teachers' Manual, a catalog of the General Biological Supply House, 761 E. 69th Place, Chicago, gives a fund of information as well as a list of suitable teaching materials.

Many teachers feel that the Nature Magazine published by the American Nature Association, 1214 16th St., Washington, D. C., is indispensable. It is \$3.00 per year but special prices are offered for more than one copy to the same address. For an additional twenty-five cents they send Nature and Science Review, in which appear reviews of the latest books and brief accounts of what other teachers are doing.

The following list is recommended for personal ownership or for the school library. If only one book is to be purchased, the first one in each group is considered the best. The number in parentheses after each title refers to the list of publishers at the end.

General

1. Comstock, Anna Botsford: "Handbook of Nature Study" (1) 1925. \$4.00.

A very comprehensive work covering all branches of the living world with one part on "Earth and Sky Study." 928 pages fully illustrated. The plan is to treat each subject as a topic and gives (1) the teacher's story, (2) lesson outline covering leading thought, method and observation for pupils. Written quite informally with rather simple terminology so as to be understood by all.

2. Downing, Eliot Rowland: "Our Living World" (2) 1928. \$2.00.

A very pleasing way of presenting the subject and suitable for both pupil and teacher. Contains many suggestions on how to present the material to pupils. 493 pages with 338 figures.

3. Downing, Eliot Rowland: "Our Physical World" (3) 1924. \$2.00.

To be used in connection with "Our Living World" in teaching elementary science, as it is written in the same style. 360 pages with 195 figures.

4. Palmer, E. Laurence: "Field Book of Nature Study" (1) \$3.25.

Contains condensed information in the form of tables on the more common vertebrate and invertebrate animals, woody plants, herbs, weeds and cultivated herbs. It has 336 specific grade recommendations and suggestions and includes many figures which are helpful in identification.

5. Boy Scouts of America. "Official Handbook for Boys" (4) \$.50.

This book contains in a very compact form much excellent material on trees, birds, animals, stars, plants, insects, fish, and reptiles.

Aquaria

1. Innes, William T.: "Goldfish Varieties and Tropical Aquaria Fishes" (5) 1917. \$4.00.

This book more than any other will answer questions which may arise on aquarium management. It contains 298 pages with 274 figures. The book also contains a chapter on Terraria.

2. Innes, William T.: "The Modern Aquarium" (5) 1928. \$1.00.

This is a sixty-two page extract of the above book and gives all the material necessary for the beginner.

3. Aquatic Life, a monthly magazine published by August M. Roth at 614 N. Chester Street, Baltimore, Maryland.

This is recommended only for those who want to do extensive work with fancy breeds of goldfish or tropicals.

4. "Goldfish, Their Care in Small Aquaria and Ponds." Bureau of Fisheries. Document No. 980.

This is a very good bulletin which sells for 5 cents and may be obtained from the Superintendent of Documents at Washington.

Birds

1. Reed, Chester A.: "Bird Guide, Land Birds East of the Rockies" (6) 1926. \$1.25.

This is a handy $3\frac{1}{4} \times 5\frac{3}{4}$ " field book for beginners. Each of the 221 pages contains a colored picture of a bird with its description and other pertinent facts.

2. Chapman, Frank M.: "Handbook of Birds of Eastern North America" (7) 1914. \$4.00.

This is one of the most comprehensive guide books for birds. It is somewhat technical and should be used entirely as a reference book. It has been used with success by pupils in the sixth grade to find answers to questions on bird habits and markings.

3. National Association of Audubon Societies, 1974 Broadway, New York City.

This association publishes and distributes books and materials dealing with wild birds and animals. Their price list will be sent on request.

4. The following U.S.D.A. Farmers' Bulletins are desirable:

506 "Food of Some Well-Known Birds of Forest, Farm and Garden."

630 "Some Common Birds Useful to the Farmer."

912 "How to Attract Birds in the East Central States."

1102 "The Crow in Its Relation to Agriculture."

1456 "Homes for Birds."

5. Washburn, F. L.: "Some Useful Birds and Others in Minnesota." Minnesota State Entomologist Circular 43. University Farm, St. Paul, Minnesota.

Flowers, Trees, Weeds

1. Reed, Chester A.: "Flower Guide East of the Rockies" (6) 1925. \$1.25.

An ideal field book, $3\frac{1}{4} \times 5\frac{3}{4}$ ", which contains 218 pages with each flower described and illustrated in color. This book belongs in a set with the "Bird Guide" by the same author.

2. Curtis, Carlton C.: "A Guide to the Trees" (8) 1925. \$1.00.

This book contains 208 pages and is well illustrated. It uses simple keys and drawings so beginners will have little difficulty in identifying specimens.

3. Rosendahl, C. O. & Butters, F. K.: "Trees and Shrubs of Minnesota" (9) 1928. \$4.00.

This valuable book contains 372 pages covering both the native and introduced trees and shrubs found in Minnesota. The book is written in the simplest terms that can be used and still give an accurate description of the specie. This is the most complete work on Minnesota trees and shrubs.

4. Pack, Charles Lathrop: "Forestry Primer" (10) Free.

This thirty-two page pamphlet will be sent in any quantity desired. It consists of fifteen lessons on forests and is suitable for use in all grades above the third.

5. "Weed Flora of Iowa," Iowa Geological Survey, Bulletin No. 4 (11) 1926. \$1.00.

This book contains 683 pages with 512 figures. This book is complete in every detail. It not only aids in weed identification but also teaches structure of plant; weed seed dissemination and weed migration; kinds found on different soils; harboring of fungi and insects by weeds; weed eradication and weed laws.

6. The following U.S.D.A. Farmers' Bulletins are recommended:
- F.B.1117 "Forestry and Farm Income" 1923.
- F.B.1171 "Growing Annual Flowering Plants" 1922.
- F.B.1177 "Care and Improvement of the Farm Woods" 1920.
- F.B.1178 "Tree Surgery" 1922.
- F.B.1208 "Trees for Town and City Streets" 1922.
- F.B.1209 "Planting and Care of Street Trees" 1921.
- F.B.1381 "Herbaceous Perennials" 1924.
- F.B.1481 "Planting the Roadside" 1926.
- F.B.1492 "Arbor Day; Its Purpose and Observance" 1926.
- (10) American Tree Association, 1214 Sixteenth St. N.W., Washington, D. C.
- (11) Iowa Geological Survey, Des Moines, Iowa.
- (12) G. P. Putnam & Sons, New York.

Professor Field Recognized

The degree of Doctor of Philosophy was conferred recently upon Professor A. M. Field of this department by the graduate faculty and the Trustees of Cornell University, Ithaca, New York.

After serving as teacher and principal of schools in Wisconsin, Dr. Field taught agriculture in the public schools of Northfield, Minnesota from 1911 to 1916, was graduate student in the University of Wisconsin and critic teacher in the University of Wisconsin High School 1916 to 1918 (February), and since the latter date has been a member of the faculty of agricultural education in the University of Minnesota where he holds the position of Associate Professor of Agricultural Education.

Dr. Field received the bachelor's and master's degrees from the University of Wisconsin before joining the faculty of the University of Minnesota.

The hosts of friends Dr. Field has made in Minnesota, Wisconsin, New York, and other states will rejoice in his new achievement and will wish for him many years of activity in which to enjoy the fruits of his labors by augmenting the large service he has already rendered to the cause of Agricultural Education.

A. V. S.

Insects

1. Lutz, Frank E.: "Fieldbook of Insects with Special Reference to Those of Northeastern United States" (12) 1918. \$3.50.

This book fits the pocket, yet contains 523 pages. It contains simple keys for tracing insects, and is accurate, complete and well illustrated.

Mammals

1. Anthony, H. E.: "Field Book of North American Mammals" (12) 1928. \$3.50.

The book contains 586 pages with thirty-two full page colored plates and 175 other illustrations. It includes a description of every mammal known north of the Rio Grande, together with brief accounts of habits, geographical ranges and other material necessary to a complete understanding of the animal.

This book is written for the layman and describes 1,445 species and subspecies. It follows the same scheme as the "Field Book of Insects" in describing one species of a group and then describing others by comparison.

Key to Publishers

- (1) Slingerland Comstock Co., Ithaca, N. Y.
- (2) Longmans, Green & Co., Chicago
- (3) University of Chicago Press, Chicago.
- (4) Boy Scouts of America, New York.
- (5) Innes & Sons, Philadelphia.
- (6) Doubleday, Page & Co., Garden City, N. Y.
- (7) D. Appleton & Co., New York City.
- (8) Greenberg Press, New York.
- (9) University of Minnesota Press, Minneapolis.

A Dependable General Fixative and Preservative Solution

A solution which we have found to be very satisfactory for a great variety of material is made as follows:

5% Formaldehyde2 parts
95% Alcohol3 parts
Glycerine1 part

This solution is especially good for parasitic round worms, killing them very rapidly and in an extended position. Specimens may be safely left in the solution indefinitely and still be available for gross examination or for mounting on slides.

For small specimens and where the material is wanted for slide work immediately, the proportions of formaldehyde and glycerine may be cut down, making up the solutions to volume with distilled water.—E. O. King in *Turtor News*, August, 1929.