

PERIODICAL USE
BY HIGH SCHOOL VOCATIONAL AGRICULTURE STUDENTS

by

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TABLE OF CONTENTS

USE OF PERIODICALS

BY HIGH SCHOOL VOCATIONAL AGRICULTURE STUDENTS

LIST OF TABLES.	3
PART I. INTRODUCTION.	4
Need for Study	5
Methods of Study	5
Review of Literature	6
Summary	11
PART II. SURVEY OF MONTANA VOCATIONAL AGRICULTURE INSTRUCTORS REGARDING THE USE OF AGRICULTURE PERIODICALS BY VOCATIONAL AGRICULTURE STUDENTS.	12
1. Periodicals received by Montana Agriculture Departments.	12
2. Agricultural magazines preferred by Montana Vo-Ag students	13
3. Evaluation of magazine study guides used by instructors.	19
4. Frequency of student reports on periodical articles.	20
5. Teaching methods concerning student use of periodical material	21
6. Filing and caring for periodicals.	22
7. The extent and experience of group study with one magazine	23
8. Periodical bulletin board displays and systems of displaying magazines	24
9. Opinions and suggestions for effective use of periodicals.	24
Summary.	27
PART III. SURVEY OF STATE SUPERVISORS AND TEACHER TRAINERS REGARDING THE USE OF AGRICULTURE PERIODICALS BY AGRICULTURE STUDENTS.	28
Purpose.	28
Results.	28
Summary.	31
PART IV. FINDINGS AND INTERPRETATIONS	32
APPENDIX.	35
Letter to Vo-Ag Instructors.	35
Letter to Supervisors and Teacher Trainers	37
Questionnaire for Vo-Ag Instructors	38
Questionnaire for Supervisors and Teacher Trainers.	42
Plans for Constructing a Magazine Cabinet.	43
BIBLIOGRAPHY.	47

Gift of Mr. Kuntz

LIST OF TABLES

TABLE I.	Agriculture Periodicals Montana Departments Receive.	15
TABLE II.	Magazines in Order of Student Preference	17
TABLE III.	Periodicals Recommended by Montana Agriculture Instructors .	18
TABLE IV.	Periodical Guides in use by Montana Vocational Agriculture Instructors in Order of their Popularity	19
TABLE V.	Classroom Use of Periodical Material by Montana Vo-Ag Instructors.	21
TABLE VI.	Number of Montana Vo-Ag Departments Having Agriculture Periodicals for Group Study.	23

Part I

Introduction

The purpose of this study is to determine how vocational agriculture departments use agriculture periodicals as educational reference and study material.

This study is designed to determine the following:

1. What agriculture periodicals are found most effective by Montana Vo-Ag teachers and students.
2. What are effective ways and means of using periodicals.
3. What are effective ways of caring for periodicals.

The findings and interpretations of this study are intended to be used as a guide for those interested in using agriculture periodicals, and to determine which magazines are most popular among students and instructors. It is hoped that many of the devices, procedures and recommendations used by different instructors may be of value to others in the field.

Many vocational agriculture instructors and supervisors believe that greater use of agricultural periodicals may be made by instructors as an up to date and current source of material, as well as an excellent field for reference.

Periodicals contain subject matter that vocational agriculture instructors have long recognized as valuable educational material. The universal presence of farm magazines and periodicals in agriculture departments, school libraries and farm homes is an indication of their potential value. They are a source of information derived by research workers from experiment stations, colleges and industry. Several magazines

are written for area coverage, while others are nation-wide. Many periodicals contain excellent charts and illustrations that may be used as teaching aids. Several of the periodicals contain a special study guide intended as a teaching aid for instructors. By confining the range of selection, instructors often obtain material which students may study and read, that will aid them to evolve relationships founded upon present knowledge, and course of study material if they are properly guided.

NEED FOR STUDY

The need for the study is based on reports from teachers and state supervisors of vocational agriculture that there is often an insufficient use of periodicals that are found in agriculture departments. Many students are not learning to use and enjoy good farm magazines. Progressive farmers and ranchers keep up to date and learn what is going on through periodicals of various types. Many vocational agriculture teachers assist their students to take advantage of periodicals while others may discourage them by unorganized teaching methods. The purpose of this study is to find what practices are in use throughout the state and determine improvements in the use of agriculture periodicals.

METHODS OF STUDY

This study consists of:

1. A questionnaire survey of Montana vocational agriculture teachers as to their opinions and problems concerning the use of agriculture periodicals by high school students in vocational agriculture departments in Montana.

2. A questionnaire survey of a selected group of state supervisors of vocational agriculture and teacher trainers regarding the use of agriculture periodicals by vocational agriculture instructors and agriculture students in twenty-six states and Hawaii.

REVIEW OF LITERATURE

A study of literature concerning the use of periodicals in the vocational agriculture direct education program and other educational fields indicates that extensive emphasis has been devoted to the proper use of periodicals in the classroom, as well as evaluation of periodicals.

Literature reviewed in this study has been:

1. Vocational agriculture periodicals
2. Vocational agriculture texts
3. Previous studies of other states
4. Studies of periodical use in other teaching fields

Dunning 1/ observed increased interest in students from use of magazines and periodicals which depict new farming developements.

Cook and Walker 2/ state that very practical articles may often be found in magazines which may be saved, filed and used the same as other references. Students' reports may also be given on such articles.

Martin 3/ states, the list of subjects rich in possibilities of enlarging students knowledge of issues and of sources of information,

1/ Dunning, T. A. "What Teaching Materials to Use." Ag. Ed. Mag. Vol 24, Feb. p. 175.

2/ Cook, C. C. and Walker, C. PRACTICAL METHODS IN TEACHING FARM MECHANICS. p. 54-55.

3/ Martin, L. K. "One Magazine is Not Enough." Social Education, Vol 14, No. 8, Dec. 1950, p 357.

about issues could be extended indefinitely. It is for the teacher to survey the periodical world and see what he can, and wants, to do in helping his students to be at home there. No teacher can survey the periodical world without familiarity with the aids and guides in common use, and it is surprising to find whole books on the use of current materials which do not mention the Reader's Guide to Periodical Literature.

Martin adds, we need to be wary lest the highly attractive offers of quantity subscriptions for classroom use and the carefully worked out teaching aids, complete with quizzes, tempt us into a modern sequel of the one-text method in the teaching of current affairs.

He notes, there is little difference between having everyone in the classroom read the same magazine each week and having every student read and be responsible for learning the minute details in a history or textbook.

Phipps indicates ^{4/} that students must be trained to look for and study new information. This is one of the best types of training that can be given a student to prepare him for solving the problems he may encounter in later life.

Much valuable and up-to-date material is to be found in our better agriculture magazines. Many articles are written for the farm papers by leading authorities on their particular subjects. Experimental data is often released to these magazines before being published in bulletin form. This practical modern up-to-date material is one of the best sources of material instructors can use ^{5/}.

^{4/} Phipps, L. J. Chapter 37, "Importance of a Good Supply of Farm Magazines." HANDBOOK ON TEACHING VOCATIONAL AGRICULTURE, p 803.

^{5/} Cook, G. C. Chapter 37, "Importance of a Good Supply of Farm Magazines." HANDBOOK ON TEACHING VOCATIONAL AGRICULTURE, 4th Edition, p. 50.

After three years of study Dresden 6/ states that the objectives of education in a democratic society require the use of current materials. They must be used as a basis or as a supplementary instructional material if we are to promote adult literacy. Texts are essential, but they are not used by adults who are studying problems. Adults must learn what goes on from periodicals, radio, television and movies or from visiting with their associates.

Dresden adds that boys and girls need to continue their education as adults after their formal schooling is completed.

Knight 7/ believes that the teacher of vocational agriculture has a wealth of interest and developing devices at his disposal. These procedures when properly utilized by the resourceful instructor, will undoubtedly increase the effectiveness of study of agriculture periodicals in all-day classes.

Some of the outstanding observations in the use of agriculture periodicals by Robinson 8/ were as follows:

1. The agriculture library included over fifty magazines, some general in nature, while others were specialized. A magazine rack held about half of the periodicals, the rest were arranged on a reading table. Neither the reading table nor the rack are places where the periodicals are thrown promiscuously.

6/ Dresden, K. W. "Workable Plan for Using Current Periodicals." The Nations Schools, Sept. 1949, p 44.

7/ Knight, E. B. "More Effective Usage of Agriculture Periodicals." Ag. Ed. Mag. Vol. 17, June 1945, p 229.

8/ Robinson, L. B. "Periodicals as Teaching Implements" Ag. Ed. Mag., Mar. 1947, Vol 19, p 175.

2. Periodicals are available at all times for reference purposes. However, regular days are set aside for their use. On these days the members of the class choose their own periodicals, use as many as they care to, and select their reading material. This seems to have arisen more interest than assigned article.
3. Previous to the start of reports, each member of the class is given a sheet of paper on which he writes the name of the student reporting and a grade given on the report. In recording marks students are asked to consider the value of the material, amount of material reported, and the ease and interest displayed by the reporting student.

This marking of grades by students centers the attention of the reporter and what he has to offer.

In review of literature concerning the educational value of different periodicals it is of interest to note some of the outstanding comments on some of the more popular farm magazines ^{9/}.

1. COUNTRY GENTLEMEN, the most popular of general farm magazines includes fiction, movie reviews, articles on current events, as well as articles on farm management. The department, "Country Gentlemen", is practically a complete home and fashion magazine in itself.
2. FARM JOURNAL, for agriculture communities which need a number of farm magazines this is recommended because of its popularity. There are many good illustrations, and a number of special features, such as, the forecast page, what to feed and plant, and when to buy and sell.

Another evaluation of farm magazines which is of excellent value to those who desire to use this source of information is by Martin ^{10/} who makes the following comments about magazines for secondary schools.

1. FARM QUARTERLY, a deluxe publication calculated to create interest for rural life in the most casual reader. Its content is not, however, entirely addressed to the city man who always wanted a farm: Its use in a high school would be to create a pleasant picture in agricultural occupations.

^{9/} STANDARD CATALOG FOR HIGH SCHOOL LIBRARIES, Sixth Edition, 1952.

^{10/} Martin, K. L. "Magazines for School Libraries" Science, Library; University of Kentucky.

2. COUNTRY GENTLEMAN, a favorite among recommended titles, a general family magazine with a present appeal to those who have suburban homes and agriculture avocations. The content is hardly specific enough for the specialist.
3. YOUR FARM, is selected for recommendation for its attractive form and its more frequent selection of articles dealing with aspects of farm living and larger rural problems.
4. FARMERS DIGEST, a long established magazine of fine standing, encased in a forbidding type of cover and its reading matter has less appeal to youthful interest.
5. AGRICULTURE LEADERS DIGEST, a trade journal with much advertising but gives generous space to 4-H news and is replete with provocative suggestions of things helpful to make for the kitchen or enterprise to start in the backyard.
Its content is a miscellany, but is worthy of purchase where a variety of agriculture magazines are desired.

In a study of the reactions from teacher trainees to educational journals 11/ the purpose of which it was to further acquaint teacher trainees with educational literature and to gain from them reactions and opinions about values to be gained through perusing or reading the magazines as well as suggestions for improvement of their services.

Evaluations, suggestions and recommendations made by the trainees covering educational journals are as follows:

1. Magazines should devote more space to practical suggestions for new teachers, including review of educational wisdom of past decades and current practices of promise in other countries.
2. Educational journals should include frequent bibliographies for topical summaries which show trends of general interest in teaching education and in various fields for areas of classroom teaching.
3. Educational journals should make special effort to tap the illimitable reservoir of contributions possible if worthwhile ideas and techniques of masses of teachers were presented. More encouragement is needed to stimulate teachers to write up ideas, methods or experience for literature.

11/ SCHOOL SCIENCE AND MATHEMATICS Vol. XLIX, December 1949.

4. Journals should give more emphasis to improvement of methodology and the art of instruction.
5. Journals should be used heavily in conjunction with education courses in the preservice training of teachers.
6. Young educators should insist that Boards of Education provide an ample professional shelf of educational magazines for teachers to use.

SUMMARY

Directed work as to the kind and amount of periodicals that should be selected for the agriculture classroom and other teaching fields, as well as the different kinds of procedures and teaching devices that should be employed to encourage students to experience the tremendous value of current literature has been broad and far reaching. What the instructor should employ in his use of current educational material has been well established. The amount of educational time devoted to the study and reading of periodicals in conjunction with an educational course of study has been increasing and has been accepted as valuable sources of educational material.

There is a lack of evidence however that instructors are making efficient use of this source of up-to-date material. Not only are periodicals lacking in classroom use with students, but also among our young and older adult citizens as well.

Part II

SURVEY OF MONTANA AGRICULTURE INSTRUCTORS
REGARDING THE USE OF
AGRICULTURE PERIODICALS BY VOCATIONAL AGRICULTURE STUDENTS

This survey of vocational agriculture instructors includes:

1. Periodicals received by Montana agriculture departments.
2. Agricultural magazines preferred by Montana vocational agriculture students.
3. Evaluation of magazine study guides used by instructors.
4. Frequency of student reports on periodical articles.
5. Teaching methods concerning student use of periodical material.
6. Filing and caring for periodicals.
7. The extent and experience of group study with one magazine.
8. Periodical bulletin board displays and systems displaying magazines.
9. Opinions and suggestions for ever effective use of periodicals.

An 80 percent response was received from 60 Montana instructors surveyed, or 48 departments responded and 12 giving no return to the questionnaire. The following tables and information give a summary of the survey of agriculture instructors use of periodicals in Montana, periodicals received by agriculture departments, magazines preferred by students and periodicals recommended by agriculture instructors.

PERIODICALS RECEIVED BY MONTANA AGRICULTURE DEPARTMENTS

From the 48 instructors answering the survey it was revealed that they used 75 different agriculture magazines and periodicals. Not all of these magazines are received by all the departments. Of the 75 magazines

indicated in use, 20 fell in the top 10 bracket or 22.66 percent of these magazines are received by all agriculture departments. They are:

Better Farming Methods
Better Crops with Plant Food
Agriculture Leader's Digest
County Agent and Vo-Ag Teacher
The Shorthorn World
The Furrow
The National Future Farmer
The American Farm Youth
Doane Agriculture Digest
Montana Farmer Stockman
American Vocational Journal
Farm Journal
G. T. A. Digest
Successful Farming
Country Gentleman, "Better Farming"
The National Grange Monthly
Hoard's Dairyman
Your Farm
Agriculture Education Magazine
Plant Food Journal

For a summary of periodicals used, preferred by students and recommended by instructors reference may be made to tables I, II, and III. Of the 75 magazines used by the 48 agriculture departments, 17 or 22.66 percent were listed as first choice by students. Second choice revealed that 20 magazines or 26.66 percent of the 75 used were preferred while 19 magazines or 25.33 percent of the total number used were of third choice. Several of the magazines were preferred in all three choices by different departments as seen in Table II.

AGRICULTURAL MAGAZINES PREFERRED BY MONTANA VO-AG STUDENTS

There were only 27 magazines or 36 percent of the total magazines in use that were listed as being preferred by the students. Of the 20 magazines subscribed to most, only nine of these were preferred by agriculture students.

They are:

Better Farming Methods
The National Future Farmer
Doane Agriculture Digest
Montana Farmer Stockman
Farm Journal
Successful Farming
Country Gentleman
Hoard's Dairyman
Your Farm

A major point of interest in the above listing of magazines preferred by students is that they closely correspond to the magazines instructors recommend for agriculture departments in Table III. When Table II and Table III are compared it is seen that student preference and instructor recommended magazines are somewhat the same in the top ten magazines.

- 15 -
TABLE I

AGRICULTURE PERIODICALS MONTANA DEPARTMENTS RECEIVE

Number Rank	Number Received	Title of Periodical
1	47	Better Farming Methods
	47	Better Crops with Plant Food
2	45	Agriculture Leader's Digest
	45	County Agent and Vo-Ag Teacher
	45	The Shorthorn World
3	43	The Furrow
	43	The National Future Farmer
4	40	The American Farm Youth
	40	Doane Agriculture Digest
	40	Montana Farmer Stockman
5	39	American Vocational Journal
	39	Farm Journal
	39	G. T. A. Digest
	39	Successful Farming
6	38	Country Gentleman, "Better Farming"
	38	The National Grange Monthly
7	37	Hoard's Dairyman
8	33	Your Farm
9	30	Agriculture Education Magazine
10	25	Plant Food Journal
11	19	The Farm
12	18	Ford News
13	16	American Poultry Journal
	16	Plant Food World
14	15	Breeders Gazette
15	13	The Duroc News
16	11	Crops and Soils
	11	Montana Wool Grower
17	10	The Poland China World
18	9	The Aberdeen Angus Journal
19	7	Animal Industry News Letter
	7	Montana Stockgrower
	7	Industrial Arts & Vocational Education
	7	Farmers Digest
20	6	Hereford Journal
	6	Farm Quarterly
21	5	Popular Mechanics
	5	M. S. C. College Farmer
	5	The Nation's Agriculture
	5	Hog Breeder
22	4	Popular Science
	4	Poultry Tribune

Number Rank	Number Received	Title of Periodical
23	3	Farm Implement News
	3	Agriculture Situation
	3	Tractor Farming
	3	Cappers Farmer
	3	The Cattleman
	3	Western Horseman
	3	School Shop
	3	Agriculture News Letter
24	2	Chester White Journal
	2	Montana Future Farmer
	2	Pacific Poultryman
	2	Home Craftsman
	2	Lindi Tips
	2	Co-operative Shipper
	2	Western Livestock Reporter
25	1	Animal Science
	1	Livestock Producer
	1	American Rifleman
	1	Journal of Range Management
	1	Western Livestock Journal
	1	Holly Agriculture News
	1	Sheep Breeder
	1	American Cattle Producer
	1	Fertilizer Review
	1	Jersey Bulletin
	1	Builders Digest
	1	Livestock Market Report
	1	Livestock Weekly
	1	Sheep and Goat Raiser
	1	Electricity on the Farm
	1	The Windrow
	1	National Livestock Producer
	1	Soil Conservation

TABLE II

MAGAZINES IN ORDER OF STUDENT PREFERENCE

No. 1st Choice	Percent of Depts. Pre- ferring Magazine	No. 2nd Choice	Percent	No. 3rd Choice	Percent	Title of Periodical
1	2.08	1	2.08			Agriculture Leaders Digest
3	6.25	2	4.17	2	4.17	The American Farm Youth
1	2.08					The American Rifleman
				1	2.08	Animal Industry Newsletter
				1	2.08	Agriculture Situation
4	8.33	2	4.17	3	6.25	Better Farming Methods
				1	2.08	Breeders Gazette
7	14.58	7	14.58	3	6.25	Country Gentleman,
						Better Farming
		1	2.08	1	2.08	Country Farming
		1	2.08			The Cattleman
				1	2.08	Cappers Farmer
		2	4.17	1	2.08	Doane Agriculture Digest
3	6.25	9	18.76	3	6.25	Farm Journal
4	8.33	1	2.08			Farm Quarterly
3	6.25	1	2.08	3	6.25	The Farm
3	6.25	4	8.33	5	10.43	Your Farm
		1	2.08			Farmers Digest
3	6.25	2	4.17	1	2.08	Hoards Dairyman
6	12.50	4	8.33	6	12.50	Montana Farmer Stockman
2	4.17	1	2.08	4	8.33	The National Future Farmer
1	2.08					Popular Science
1	2.08	1	2.08			Popular Mechanics
		1	2.08			Livestock Producer
				1	2.08	Journal of Range Management
2	4.17	3	6.25	6	12.50	Successful Farming
1	2.08	1	2.08	1	2.08	Western Horseman
3	6.25	3	6.25	4	8.33	No Choice or Preference

PERIODICALS RECOMMENDED BY MONTANA AGRICULTURE INSTRUCTORS

Rank as to Recom- mendation	No. of Instructors Recommending Magazine	Percent of Instructors Recommending Magazine	Title of Magazine
1	20	41	Your Farm
	20	41	Montana Farmer Stockman
2	18	37	Successful Farming
3	16	33	Better Farming Methods
4	13	27	Farm Journal
5	12	25	Doane Agriculture Digest
6	11	22	Country Gentleman (Better Farming)
7	10	20	Hoards Dairyman
8	6	12	American Farm Youth
8		12	The Farm
9	5	10	Farm Quarterly
10	4	8	Crops and Soils
11	3	6	County Agent & Vo-Ag Teacher
12	2	4	National Future Farmer
12			Cappers Farmer
12			Agriculture Education Magazine
12			Poultry Tribune
12			Farm Digest
12			American Cattle Producer
12			Better Crops and Plant Food
12			Breeders Gazette
13	1	2	Livestock Market Report
13			American Poultry Journal
13			Western Livestock Journal
13			Grain Quarterly
13			Pacific Poultryman
13			Montana Wool Grower
13			Soils

EVALUATION OF MAGAZINE STUDY GUIDES USED BY INSTRUCTORS

Some magazines have an instructor guide suggesting classroom use of the periodical. Of the 48 instructors answering the survey 20 indicated they used no periodical guide while 12 used one guide, 9 two, 4 used three and 2 used four guides. The following table provides a picture of the instructors make of available periodical guides.

TABLE IV
PERIODICAL GUIDES IN USE
BY MONTANA AGRICULTURE INSTRUCTORS
IN ORDER OF POPULARITY

<u>Periodical Guides in Use</u>	<u>Number of Instructors Using Guide</u>	<u>Percent of Instructors Using Guide</u>
Doane Agriculture Guide	23	47.91
Farm Journal	8	16.66
Country Gentleman	8	16.66
Successful Farming	7	14.54
The Farm	1	2.83
Montana Farmer	1	2.83
None	20	41.66

The above chart clearly points out the fact that 28 instructors or 58.33 percent use one or more guides, while 20 instructors or 41.66 percent use no periodical guide in their instructional use of agriculture magazines.

A review of the question, "Of what value are periodical guides?". showed that 22 instructors or 45.83 percent gave no reply. There was 26 or 54.16 percent of the instructors that expressed their opinion of the educational value of the guides offered for their use by the magazines in Table IV.

A summary of which follows.

The general opinion expressed considered periodical guides as a source of information that helped to suggest items of current value by

providing listings of important questions and charts on articles of current importance. They were considered as excellent time savers, an aid in helping to adapt new material to different study areas. Guides were considered by several as a factual source of information for students in the upper classes to find material for reports and assignments.

Some of the more important negative comments expressed a feeling among agriculture instructors that many of the guides failed to be adaptable for study purposes on the local level. Some of the guides were considered of little value as a teaching aid for all-day classes but of excellent value in adult classes.

FREQUENCY OF STUDENT REPORTS ON PERIODICAL ARTICLES

Teacher response to frequency of periodical reports and periodical use as classroom material: Of the 48 departments answering this phase of the questionnaire, the four agriculture classes were required to give reports in the following manner.

Reporting Class	Number of Reports Given During One Year by Department				
	1 a week	1 a month	2 a month	occasionally	none
Freshman	10	15	7	5	1
Sophomore	7	14	9	5	4
Junior	5	14	8	5	5
Senior	5	15	6	5	5

General comments of instructors on how often reports were given.

A definite time was set aside for reports on current material. Reports were given by class members when opening a new field of study or to enlarge upon a subject field under study. A few departments used periodical reports for public speaking training with reports being given with each new publication. Others used them when the occasion fitted the need.

TEACHING METHODS
CONCERNING STUDENT USE OF PERIODICAL MATERIAL

Students were required to use periodical material for good classroom study in the following ways.

TABLE V

CLASSROOM USE OF PERIODICAL MATERIAL
BY MONTANA VO-AG INSTRUCTORS

Departments
Reporting
Use

39	As a source for current class material
41	As a source of material for oral reports
27	As a source of material for written reports
15	As a source of material for panel discussions
3	Reading periods for periodicals
2	Special make-up material

When asked if students were tested on material assigned and read in periodicals 34 or 70.83 percent answered yes while 14 or 29.16 did not. Student groups were often tested in an oral manner while others were given an examination at the close of the discussion or reporting period.

Out of class assignments were given by 24 or 50 percent of the instructors, while 22 or 45.83 percent felt they should only be given during class time and 2 or 4.16 percent had no opinion.

Many of our instructors allow special grade points for reports given from periodicals by enterprising students. There were 26 or 54.16 percent of the instructors who gave special grade points, 19 or 39.56 percent who did not, 3 or 6.25 percent failed to answer.

There were 11 or 22.91 percent from the instructors who encouraged their students to make scrap books containing periodical material related to their farming projects. While 35 or 72.91 percent did not encourage scrapbooks

and 2 or 4.16 percent did not answer. Several instructors felt this practice should be incorporated into the students daily notebooks and not handled as a separate enterprise.

Timely articles in magazines are called to student attention by 46 or 95.82 percent of the instructors. Only 2 or 4.16 percent do not take advantage of this excellent teaching practice.

Use of a daily newspaper in the classroom for current market reports, other agriculture news and information receives the use of 18 or 37.60 percent of the agriculture departments. There were 30 or 62.49 percent that used no newspaper in the classroom.

FILING AND CARING OF PERIODICALS

As many as 30 or 62.50 percent of the instructors do not keep a subject file of periodical clippings as current reference material. Periodical material is cataloged according to subject matter by 18 or 37.50 percent of the agriculture departments.

Periodicals are usually stored as reference material, or until clipping can be removed by 33 instructors, for a period of one to two years. The remaining 15 instructors used them for six months or less. The ten magazines often filed or stored for reference material are as follows:

Montana Farmer Stockman	Doane's Agriculture Digest
Your Farm	Hoard's Dairyman
Better Farming Methods	Agriculture Education Magazine
Farm Journal	Successful Farming
Country Gentleman	Farm Quarterly

This list of periodicals stored for reference material closely resembles the list of magazines preferred by agriculture students and those recommended by instructors in Tables II and III.

THE EXTENT AND EXPERIENCE
OF GROUP STUDY WITH MAGAZINES

Periodical magazines used in large enough supply for group study are in use in 50 percent of Montana agriculture departments. The following magazines are used in this manner:

Poultry Digest	Country Gentleman
Your Farm	Montana Farmer Stockman
American Farm Youth	The Farm
Successful Farming	Hoard's Dairyman
Farm Journal	Future Farmer, National and State
Farm Quarterly	

A majority of the instructors using periodicals for group study used one magazine while several used two or more. The following table summarizes the above statement.

TABLE VI

NUMBER OF MONTANA VO-AG DEPARTMENTS
HAVING AGRICULTURE PERIODICALS FOR GROUP STUDY

Number of Departments	Number of Periodicals
11	1
8	2
4	3
1	4

Group study of periodicals by those who used them in this manner was believed to be successful if used promptly before students read the magazine elsewhere. They were considered as good supplemental material for regular study units if not over used. Study of magazines in this manner was also considered somewhat expensive and many budgets were too small for instructors who desired to use magazines in this manner. However, it was considered very successful by the majority who had indulged.

PERIODICAL BULLETIN BOARD DISPLAYS
AND SYSTEMS OF DISPLAYING MAGAZINES

Periodical bulletin board displays were used by 28 or 58.33 percent of the instructors and 20 or 41.66 percent did not use periodicals for displays. Bulletin board displays as inter-class competition has proved effective in interesting students in magazines.

The different systems used to display magazines included wall racks, with 17 departments using that type. Sloping stands were used by 28 instructors while only 4 used either the pigeonhole rack, tables or book shelves. There were 3 instructors using the sloping stand and wall rack method of display.

A suggested type of magazine display and filing cabinet has been prepared by Loreen 12/ that provides a neat way of storing and displaying magazines. Reference may be made to Washington State College Bulletin No. 3 (see Appendix) in which a complete plan of construction and bill of materials is shown.

OPINIONS AND SUGGESTIONS
FOR EFFECTIVE USE OF PERIODICALS

Many methods of instruction have been effective in class use of periodicals. Several instructors prefer written reports by students, others prefer 3 to 5 minute oral reports of free choice as long as they are on agriculture or subject of study. These short reports are not only used to sum up current material, but are used to develop speech abilities at the

12/ Loreen, Oscar "Plans for Constructing a Magazine Cabinet" Bul. No. 3, Ag. Ed. Dept., State College of Washington, pp. 1-4.

same time. Each report is critized and graded. This method allows use of several magazines instead of pinning the entire class down with one periodical.

Other effective methods of use are panel discussion periods or material for advanced students to use while the average ones are doing supervised study. Calling attention of a student to a particularly good article related to his farming program is a favorite practice. Giving a pupil a magazine containing a specially related article is effective.

The fact that greater use should be made of periodicals was expressed in the thought that magazines offered up to the minute sources of reference material in the field of agriculture.

Montana Vo-Ag teacher's suggestions for increasing the effectiveness of periodical study are as follows:

1. Texts and periodical study should be used in combination to develop a complete picture of farming for the student.
2. A few good magazines properly used will give an infinite amount of variety of educational material and avoid an accumulation of unnecessary periodicals.
3. Have each student select a field of agriculture at the beginning of each semester. It is their responsibility to catalogue, outline and report on such material to the group. Subject matter not selected in important fields for study should be assigned.
4. Develop scrap books and illustration files on different fields of study for student and instructor reference, allowing students to take a part in the development.
5. Have at least one magazine with a study guide with copies available for all students.
6. Use periodicals as a basis of information for vocational agriculture speech contest.
7. Magazines should be selected for different areas of study and regional edition. An index system of evaluating magazines by students and instructors would help a department obtain the periodicals students desire.

8. Extra grade points for outside readings and reports in addition to regular class marks to help build up semester grades.
9. More pre-reading by instructors and use of study guides available.
10. Have a recommended list of periodicals sent out to vocational agriculture departments by colleges and agriculture education departments to aid instructors in selecting magazines.
11. Start the freshman class off right with good periodicals and proper instructional use. Once the reading habit is installed, the job of teaching from periodicals is considerably lessened.
12. Separate magazine racks for agriculture periodicals in the library room or study hall. An attractive display rack with magazines neatly arranged attracts the attention of students.
13. Greater use of periodical bulletin board displays with inter-class competition develops keen interest and allows students to express their natural artistic ability.

Suggestions made by Knight 13/ in a similar study determined the following:

1. Timely articles in current magazines should be called to the students attention.
2. Extra grades are awarded for volunteer reports.
3. Publicity regarding the number of articles read and reported upon by individual pupils may be given on the department bulletin board.
4. Scrapbooks containing articles related to the youth's own farming programs may be kept. Exhibits featuring these scrapbooks may be held in connection with visitation days, school fairs, etc.
5. Examination questions may be regularly asked about the major magazine items discussed in class or at the conclusion of oral reports.
6. Opportunity to read magazines in class time may be provided as a means of recognizing business-like completion of as assigned lesson or similar class task.

13/ Knight, E. B. "More Effective Use of Agriculture Periodicals" Ag. Ed. Mag. Vol. 17, June 1945, p 229.

7. F. F. A. programs and other school activities making use of data from agricultural periodicals tend to build interest in magazine reading.
8. Commending students who independently present information gleaned from their reading is highly effective.
9. Picture collections showing the application of improved practices, superior types of animals and crops, significant events, program outcomes, and improved agriculture personalities encourage interest.

SUMMARY

Approximately 80 percent of the vocational agriculture instructors in Montana use 75 different magazines and periodicals. Not all of these magazines are in any one department.

Students of vocational agriculture preferred approximately one-third or 36 percent of the total magazines in use. Of the 20 magazines subscribed to most, 9 or these were preferred by agriculture students. Of the 28 magazines recommended by instructors, 13 or 46.42 percent were of the 20 magazines subscribed to most. The magazines recommended and preferred by instructors and students closely correspond.

Less than one-half of the instructors surveyed use periodical guides, most of whom, were favor of continuing their use as an effective reference. Most instructors set aside a definite schedule for periodical reports. Thirty-four or 70.83 percent tested students on periodical material. Out of class assignments were given by 50 percent of the teachers. Special grades were given by 54.16 percent of the teachers, 22.91 percent also encourage students to make scrapbooks related to their farming programs, while 72.91 percent did not encourage this practice. Periodicals used in large enough supply for group study are in use in 50 percent of our agricultural

departments. Although they were felt to be of excellent value many indicated their budgets were too small to allow magazines to be used in this manner.

Bulletin board displays of periodicals were used by 28 or 58.33 percent of the teachers. Sloping magazine stands or racks were also used by 28 teachers for displaying magazines. All vocational agriculture instructors use some type of magazine rack.

The majority expressed a desire for assistance and recommendations in the selection and use of agriculture periodical material.

Part III

SURVEY OF STATE SUPERVISORS AND TEACHER TRAINERS REGARDING THE USE OF AGRICULTURE PERIODICALS BY AGRICULTURAL STUDENTS

Purpose

The purpose of this part of the study is to determine the general practices supervisors and teacher trainers have observed that agriculture instructors employ in the use of periodicals. An opinion was desired of what teacher trainers thought of the "open area" type of study in which students are allowed to browse through farm magazines. The value of periodical guides were also questioned. Suggestions were sought as to how periodicals might be best displayed and then filed. It was desired that the experience of educators in the agriculture education departments of 27 colleges would yield several sound methods of how teachers might better use periodicals.

Results

The results of the survey with the supervisors and teacher trainers are as follows:

The benefits obtained by students reading agriculture periodicals received the following outstanding comments.

1. They receive experience in using the latest technical information available.
2. They learn to interpret articles and to depend on magazines they will use as adult farmers.
3. Under the guidance of their instructors they learn the weaknesses of articles and information, to discriminate between facts and color.
4. A rich source of information if it can be tied to current needs.
5. Benefits are questionable, usually because no systematic method is used. If an article is of direct benefit to student, the reading can serve a useful purpose.

General practices observed that agriculture instructors employ in the essential use of periodicals are stated briefly in the following summary. The following observations were made by 27 different state vocational agriculture supervisors and teacher trainers.

1. Short oral reports given in class with each pupil grading the report on delivery, timeliness and practicability, then handed in to the instructor with each report.
2. Different departments use periodicals for reference to find answers to unit of study questions asked in the daily lesson.
3. Used as incentive for students who complete other work on assigned unit "spare time reading."
4. Some utilize one period per week as a "reports" period; assigning specific articles, assigning specific enterprises on particular days: Some teachers allow free choice of subject matter while some allow pupils to score each other on reports and discussions.
5. Previously check recommended articles in magazines and then distribute magazines or call the attention of students to items that are checked.

6. Use of periodicals during year for short reports and reference material, then focus attention on periodicals for material at the time of public speaking contests.
7. Many instructors use periodicals to give first instruction in public speaking, especially the freshmen. The general opinion was that it helped them to get started in using magazines.
8. Clipping a number of articles to be used for file source material for teaching or student reference and project planning material as well as scrap or notebook material was a common practice.

Reaction to the value of "open area" type of study periods included the following statements:

1. Has value when used with advanced students or when used by students making special studies or a project plan.
2. This practice is good for a very limited amount of times. To insure it being productive, pupils should be required to submit a report to the teacher on what they found. The latter may be brief and it may be oral or written.
3. A good practice if done regularly and properly supervised. There must also be some follow-up to really be effective.

Most supervisors and teacher trainers did not favor an open area study period where students are allowed to browse through farm magazines or periodicals.

Some of the indicated values obtained from use of publisher prepared agriculture teaching guides are:

1. A work "crutch" for poorer teachers.
2. A systematic approach to the use of periodicals.
3. Some danger exists in that some teachers do not integrate this device with organized instructional program.
4. Very good as it gets the "meat" from articles in the least amount of time.
5. Organized approach; material is in better form for use by teacher.

A great many of the supervisors and teacher trainers believed teaching guides were of little value to the instructor, that they didn't fit area or local conditions and were poorly organized. It was expressed by several that the good teacher would and should do his own proof reading. Others believed that it was a systematic approach to periodical material and a time saver for teachers who used guides properly. The combination of guides and the teacher's own analysis would be the most effective approach in applying current periodical material to local conditions.

Comments concerning displaying and filing current issues of periodicals were: The general practice of display was sloping magazine racks or stands, preferring some space for storage for past issues. Many cited the method of punching a hole in the corner of magazines and hanging them on hooks on the wall or under black boards.

Some of the systems of filing periodicals were notebook type binders for a year's issue with volume being filed in a glass faced cupboard accessible to students. Others used stocks similar to those used by libraries. Many used only current material of value, keyed to subject area, year of issue and filed accordingly.

SUMMARY

Supervisors and teacher trainers of vocational agriculture believed that periodicals had special value in the following situations.

1. Where the student is making special studies or preparing project plans.
2. Where recent information on some phase of agriculture is needed.
3. Where photographs and charts can be used to advantage to supplement printed matter.

4. Teachers should have their students use periodical material with a definite purpose in mind.
5. Where the teacher desires to locate teaching material distributed by commercial firms and others catering to the needs of vocational agriculture.

Although supervisors were in favor of using periodicals in classrooms, it was doubted as a whole that each teacher used them as well as they might. Some recommendations to guard against when using periodicals were:

1. Using them as mere busy work.
2. Failure to tie timely articles in with proper units.
3. Failure to preserve worthwhile information for future use.
4. Lack of system in reviewing magazines for timely articles.
5. Lack of an adequate filing system for magazines and special articles.

Part IV

FINDINGS AND INTERPRETATIONS

This study indicates that 80 percent of the Montana vocational agriculture instructors use 75 different farm magazines and periodicals. Not all of these magazines are in use in any one department.

Conclusions from the survey of Montana Vocational Agriculture teachers are:

1. Text and periodical study should be used in combination to develop a complete picture of farming for the student of agriculture.
2. A few good magazines properly used will give an infinite amount of variety of educational material and avoid an accumulation of unnecessary periodicals.
3. Have at least one magazine with a study guide with copies available for all students.
4. Start the freshman class off right with good periodicals and proper instructional use. Once the reading habit is installed, the job of teaching from periodicals is considerably lessened.

5. Greater use of periodical bulletin board displays with inter-class competition develops keen interest and allows students to express their natural artistic ability.
6. Magazines should be selected for different areas of study and regional editions. An index system of evaluating a magazine by students and instructors would help a department obtain the periodicals students desire.
7. Have a recommended list of periodicals sent out to vocational agriculture departments by colleges and agriculture education departments to aid instructors in selecting magazines.
8. Students preferred nine magazines which are common to most Montana vocational agriculture departments, they are:

Better Farming Methods	Successful Farming
The National Future Farmer	Country Gentleman
Doane Agriculture Digest	Hoard's Dairyman
Montana Farmer Stockman	Your Farm
Farm Journal	

9. Agriculture magazines recommended by Montana Vo-Ag instructors in order of popularity are:

Your Farm	Hoard's Dairyman
Montana Farmer Stockman	American Farm Youth
Successful Farming	The Farm
Better Farming Methods	Farm Quarterly
Farm Journal	Crops & Soils
Doane Agriculture Digest	County Agent-Vo-Ag Teacher
Country Gentleman	

The study of vocational agriculture supervisors and teacher trainers regarding the use of periodicals revealed the following information and suggestions.

Supervisors and teacher trainers of vocational agriculture believed that periodicals had special value in the following situations.

1. Students learn to study magazines they will use later when farming.
2. Students learn to discriminate between "facts and color."
3. Periodicals are of value when the student is making special studies, preparing project plans, where photographs and charts are required to supplement printed matter.

4. Periodicals are of value in locating material distributed by commercial firms catering to the needs of vocational agriculture.
5. Students receive experience in using and acquiring information when periodical material is used with a definite purpose in mind.

Supervisors and teacher trainers of vocational agriculture made the following recommendations to guard against the wrong use of periodicals.

1. Lack of an adequate filing system for magazines and timely articles.
2. Lack of system in reviewing magazines for timely articles.
3. Failure to preserve worthwhile material for future use.
4. Failure to tie timely articles in with proper units of study.

This study suggests that there is a need for further work in the evaluation of farm magazines for teachers and students. A follow-up study might consider the indexing and evaluation of farm magazines.

APPENDIX

- 35 -

May 12, 1953

To: Montana Vocational Agriculture Teachers

From: Robert A. Weber

Re: Use of Periodicals by High School Vo-Ag Students

I am conducting an investigation into the use of Agriculture periodicals by Vo-Ag Instructors and Students in Montana. This is a part of my work on a Master's Degree in the Department of Agricultural Education, Montana State College.

All of the Vo-Ag Departments in Montana are being surveyed. A questionnaire is being sent to Teacher Trainers and Supervisors of the Pacific Region.

The purpose of this letter is to enlist your cooperation. Please fill out the enclosed questionnaire and return it in the self addressed envelope by May 25, 1953.

A copy of the completed survey will be sent to each person who has cooperated in this project.

RAW:jld

enc.

Montana State College
Department of Agricultural Education

May 28, 1953

To: Montana Vocational Agriculture Teachers

From: Robert A. Weber

Re: Use of Periodicals by High School Vo-Ag Students

The purpose of this letter is to encourage you to fill out and return the questionnaire, "Use of Periodicals by High School Vo-Ag Students," that I mailed to you May 12, 1953.

In order to make a more complete survey of practices of Montana Vo-Ag Departments with regard to the use of periodicals I would like to receive as many returns as possible.

RAW:jd

Montana State College
Department of Agricultural Education

May 12, 1953

Dear

I am making a study to determine better methods of using periodicals by high school Vo-Ag classes. The following procedures are being explored:

1. A study of the literature on use of periodicals in teaching..
2. A survey of practices of Montana Vo-Ag departments with regard to the use of periodicals.
3. A survey of the observations and opinions of teacher trainers and supervisors with regard to use of periodicals by high school Vo-Ag classes.

Leo L. Knuti, my advisor, has suggested that I might secure your cooperation. I would like to secure from you answers to the attached list of questions. Our thought was to secure from teacher trainers and supervisors a summary of observations they have made from their readings and visits with Vo-Ag teachers.

We plan to survey the local Ag teachers in our state with regard to their practice on use of periodicals in high school Vo-Ag classes. We plan to supplement this data with comments of supervisors and teacher trainers.

Find attached a copy of the questionnaire being sent to Montana Vo-Ag teachers.

A copy of the completed study will be sent to you. This study is a special problem which is a part of my work for a Masters of Science Degree in Agricultural Education.

Sincerely yours,

Robert Weber, Graduate Student
Agricultural Education Department

RW:jd
enc.

School _____ Teacher _____

I. Check each of the following Agricultural periodicals that your department receives.

- ___ Agriculture Leader's Digest
- ___ Agricultural Education Magazine
- ___ The Aberdeen Angus Journal
- ___ The American Farm Youth
- ___ American Vocational Journal
- ___ American Poultry Journal
- ___ Better Farming Methods
- ___ Better Crops with Plant Food
- ___ Breeder's Gazette
- ___ County Agent & Vo-Ag Teacher
- ___ Country Gentlemen
- ___ Chester White Journal
- ___ Crops and Soils
- ___ Doane Agriculture Digest
- ___ The Duroc News
- ___ Farm Journal
- ___ The Furrow
- ___ Ford News
- ___ The Farm
- ___ Your Farm
- ___ Farmer's Digest
- ___ Hoard's Dairyman
- ___ Hereford Journal
- ___ Hog Breeder
- ___ Industrial Arts and Vocational Education
- ___ Montana Farmer Stockman
- ___ Montana Wool Grower
- ___ The Montana Stockgrower
- ___ The National Future Farmer
- ___ The National Grange Monthly
- ___ Plant Food World
- ___ Plant Food Journal
- ___ Successful Farming
- ___ The Shorthorn World

II. Others not listed above:

III. Name the three magazines your students like best, in their order of preference.

1. _____ 3. _____
2. _____

IV. Which of the following study guides do you use?

____ Farm Journal
____ Doane Agriculture Guide
____ Country Gentlemen
____ Others, please list

V. What value are these guides?

VI. How often are periodical reports given by your classes?

Course	Once a Week	Twice a Week	When do you use them
Ag. I	_____	_____	_____
Ag. II	_____	_____	_____
Ag. III	_____	_____	_____
Ag. IV	_____	_____	_____

VII. Do you test students on material assigned and read in periodicals?

Yes _____ No _____

VIII. How are periodicals used?

____ 1. As a source for current class material.
____ 2. As source material for oral reports.
____ 3. As source material for written reports
____ 4. As source material for panel discussions.
____ 5. Other ways not mentioned, please list.

IX. List periodicals you have in large enough supply for group study.

X. What has been your experience with regard to using

magazines in quantity, such as a copy per student?

XI. Do you assign material in periodicals as extra "out-of" class assignments?
Yes _____ No _____

XII. Are students allowed grade points for reports from periodicals?
Yes _____ No _____

XIII. Are students encouraged to make up scrap books containing articles related to their farming programs?
Yes _____ No _____

XIV. Are timely articles in periodicals called to student attention?
Yes _____ No _____

XV. Do you have a subject file of periodical clippings?
Yes _____ No _____

XVI. Which periodicals do you keep for permanent use?

XVII. How long do you ordinarily keep periodicals? _____

XVIII. Do you use a daily paper in the classroom for current market reports?
Yes _____ No _____

XIX. Do you use periodical bulletin board displays?
Yes _____ No _____

XX. Check the system you use in displaying magazines.

- ___ Wall rack
 - ___ Sloping stand
 - ___ Pigeon-hole rack
 - ___ List other methods used.
-
-

XXI. List four subject matter periodicals you would suggest for a Vo-Ag Department.

- | | |
|----------|----------|
| 1. _____ | 3. _____ |
| 2. _____ | 4. _____ |

XXII. What general practices have you found to be effective with regard to the use of periodicals?

XXIII. What suggestions do you have for the improved use of periodicals?

QUESTIONS FOR SUPERVISORS AND TEACHER TRAINERS
TO ANSWER REGARDING THE USE OF AGRICULTURAL
PERIODICALS BY VOCATIONAL AGRICULTURAL STUDENTS

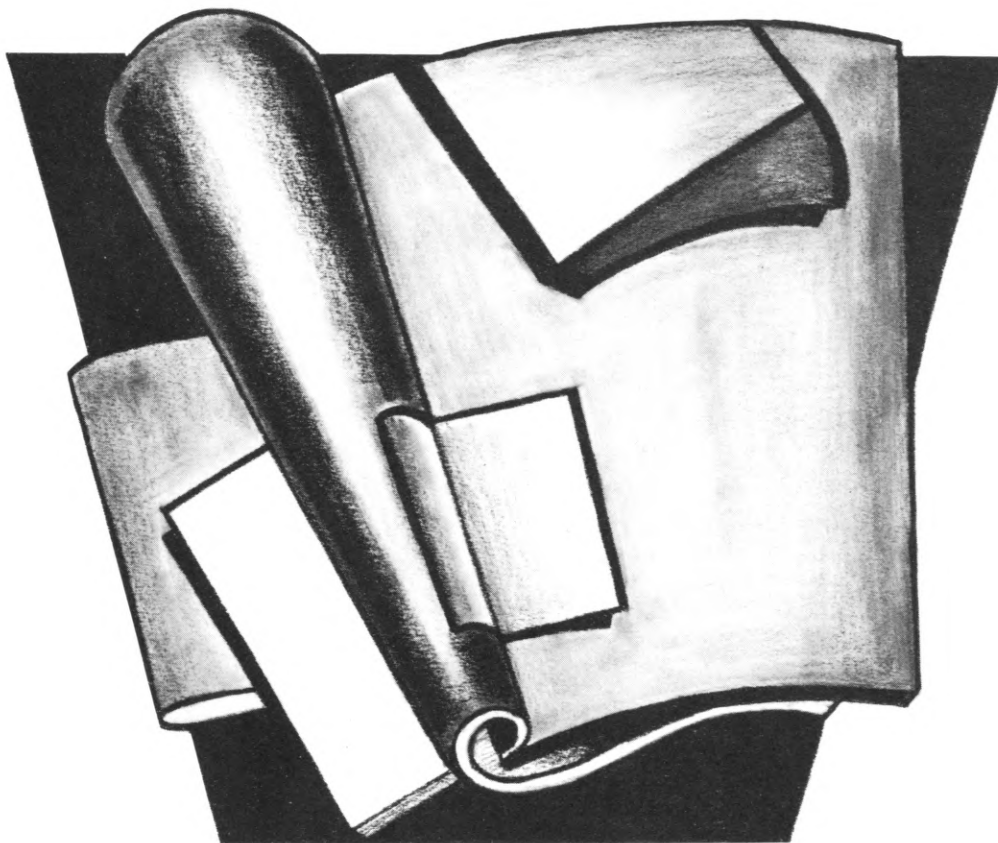
1. What benefits do students obtain from reading agricultural periodicals?
2. What general practices have you observed that agriculture instructors employ in the use of periodicals?
3. What practices do instructors employ regarding student reports on periodical material?
4. What do you think of "open area" type of study period in which the student is allowed to browse through farm magazines or periodicals?
5. What values have been obtained from use of the teaching guides provided by periodicals such as (a) Successful Farming, (b) Doane Agricultural Digest and (c) Country Gentlemen?
6. What are your suggestions as to how periodicals might best be displayed?
7. What are some of the practices that are used by your Agricultural Departments to file current issues of periodicals?
8. Other comments.

Note: We would like to receive any written material you have for distribution on the use of periodicals.

Name

Are Your Magazines Showing?

- 43 -

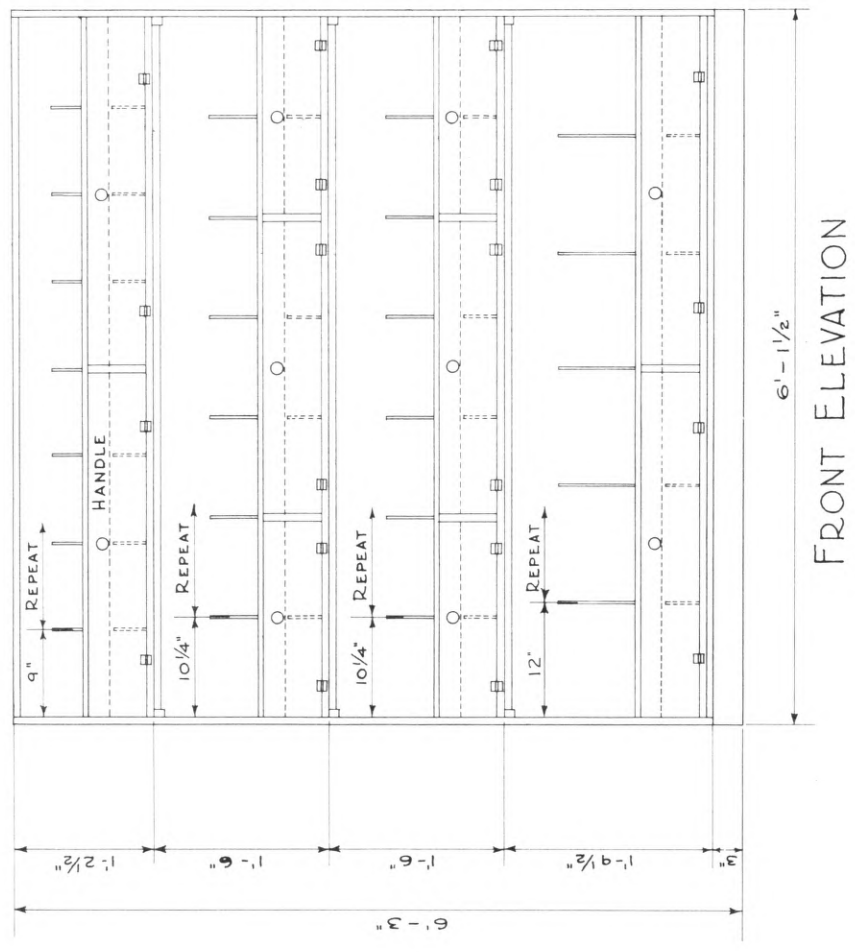
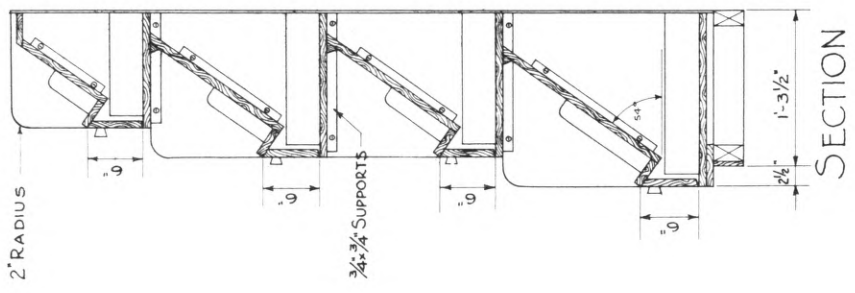
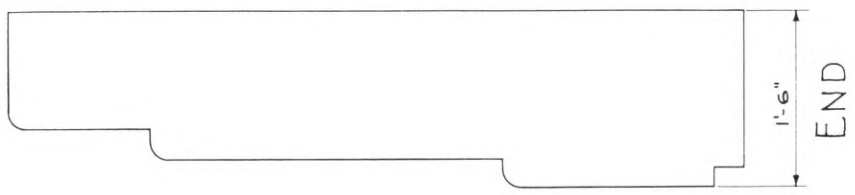


PLANS FOR CONSTRUCTING A MAGAZINE CABINET

Agricultural
Education
Bulletin No. 3.

Prepared by:
Oscar Loreen
Assistant State Supervisor &
Teacher Trainer
Agricultural Education

Published by:
Agricultural Education
School of Education
The State College of Washington
Pullman, Washington



MAGAZINE RACK

Magazine Display and Filing Cabinet

Designed by

William H. Evans, Vocational Agriculture Instructor
Lind High School
Lind, Washington



HERE IS A MAGAZINE CABINET that provides a neat way of storing and displaying magazines. Current copies are kept out on the shelves where they are clearly visible, and the back numbers are stored out of sight and away from dust in the compartments under the shelves.

The construction is simple enough that the average school shop class, under careful supervision, can construct it.

These plans are for a magazine cabinet that will accommodate 28 different magazines. The size can be varied by making the cabinet longer or shorter to suit individual needs. The size of the individual spaces for magazines may also be varied according to needs. The commonly used magazines are of three general sizes in widths: 5 - 7 inches, those 8 - 9 inches, and the wide ones about 11 inches in width.

The needs of a particular department, so far as the different sized magazines are concerned, should be carefully checked so that compartments of the right width will be provided in the magazine cabinet constructed.

BILL OF MATERIAL

Ends, $\frac{3}{4}$ " fir plywood	18" X 6' 3"
Back, $\frac{1}{4}$ " fir plywood	6' X 6' 3"
Shelves Under Compartments:	
Bottom, 2 pieces	$\frac{3}{4}$ " X 12" X 6'
Middle two, 4 pieces	$\frac{3}{4}$ " X 10" X 6'
Top, 2 pieces	$\frac{3}{4}$ " X 8" X 6'
Shelves, Sloping:	
Bottom, 2 pieces	$\frac{3}{4}$ " X 10" X 6'
Middle two, 4 pieces	$\frac{3}{4}$ " X 8" X 6'
Top, 2 pieces	$\frac{3}{4}$ " X 8" X 6'
Base, Sloping Shelves, 4 pieces	$\frac{3}{4}$ " X 3" X 6'
Doors, 4 pieces	$\frac{3}{4}$ " X 8" X 6'
Base, 2 pieces	2" X 4" X 6'
Bottom Support, 2 pieces	$\frac{3}{4}$ " X 4" X 6'
Partitions, 2 pieces	$\frac{1}{2}$ " X 6" X 6'
Screws, 72	1 $\frac{1}{2}$ " X 8" FHB
Hinges, 10 pair	1 $\frac{1}{2}$ " ornamental or chest
Knobs, 10	round
Catches, Door, 10	friction or spring

BIBLIOGRAPHY

1. Dunning, T. A. "What Teaching Materials to Use," Ag. Ed. Mag. Vol 24, Feb. p. 175.
2. Cook, C. C. and Walker, C. PRACTICAL METHODS IN TEACHING FARM MECHANICS. p. 54-55.
3. Martin, L. K. "One Magazine is not Enough," Social Education, Vol 14, No. 8, Dec. 1950, p. 357.
4. Phipps, L. J. Chapter 37, "Importance of a Good Supply of Farm Magazines," HANDBOOK ON TEACHING VOCATIONAL AGRICULTURE, p. 803.
5. Cook, G. C. Chapter 37, "Importance of a Good Supply of Farm Magazines," HANDBOOK ON TEACHING VOCATIONAL AGRICULTURE, 4th Edition, p. 50.
6. Dresden, K. W. "Workable Plan for Using Current Periodicals," The Nations Schools, Sept. 1949, p. 44.
7. Knight, E. B. "More Effective Usage of Agriculture Periodicals," Ag. Ed. Mag. Vol 17, June 1945, p. 229.
8. Robinson, L. B. "Periodicals as Teaching Implements," Ag. Ed. Mag. Vol 19, p 175, Mar. 1947.
9. STANDARD CATALOG FOR HIGH SCHOOL LIBRARIES, Sixth Edition, 1952.
10. Martin, K. L. "Magazines for School Libraries," Library Science, University of Kentucky.
11. SCHOOL SCIENCE AND MATHEMATICS Vol XLIX, Dec. 1949.
12. Loreen, Oscar "Plans for Constructing a Magazine Cabinet" Bul. No. 3, Ag. Ed. Dept., State College of Washington, p. 1-4.
13. Knight, E. B. "More Effective Use of Agriculture Periodicals," Ag. Ed. Mag. Vol. 17, June 1945, p. 229.