AN EVALUATION OF THE MONTANA VOCATIONAL AGRICULTURE RECORD BOOK

by

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A SPECIAL PROBLEM
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PART I

INTRODUCTION

AND

PURPOSE OF STUDY

The purpose of this study is to evaluate the Montana Vocational Agriculture record book 1. This study suggests improvements in various sections of the record book, which the author believes will benefit the student and the instructor when using the book.

The Montana Vocational Agriculture record book has been periodically revised by committees of vocational agriculture instructors. The instructors generally express a continuous need for improvements in structure and practices for its use. The record book is used by vocational agriculture students to record their farming programs and FFA activities.

\[1\] Montana Vocational Agriculture Record Book, Illinois, Interstate, pp. 30
METHOD OF STUDY

The method of study includes the following:

1. A statement of the nature and purposes of the student supervised farming programs.

2. A survey of the opinions of Montana Vocational Agriculture instructors on the effectiveness of the Montana Vocational Agriculture Record Book.

3. A study of vocational agriculture record books from other states to secure suggestions for improvements of the Montana Vocational Agriculture Record Book.
REVIEW OF LITERATURE

The author, in reviewing the literature of supervised farming and record keeping, did so to emphasize the fact that record keeping is an integral part of the total Vocational Agriculture Program. The reviewed literature will demonstrate how the success of a Vocational Agriculture Program depends on the keeping and using of adequate records. The areas covered are:

1. Nature and purpose of supervised farming
2. Types of farming programs
3. Purpose of record keeping
4. Motivation
5. Requirements of records
NATURE AND PURPOSE OF SUPERVISED FARMING

The purpose of this section is to state the nature and purposes of supervised student farmings.

Supervised farming programs may be defined as the phases of farming and related activities of young farmers and adult farmers which are developed as the result of instruction in vocational agriculture. A supervised farming program is a planned experiencing program in farming. It is a miniature farming business conducted by the student, providing practical training in farming and real problems; therefore interest in learning and a reason for learning. It is one of the better ways that students can learn to understand themselves, to be responsible, to work with nature, to understand science and to achieve their goals. A farming program may vary in size and scope according to the students abilities and opportunities. A supervised farming program indicates that the instructor of vocational agriculture has some important responsibilities in directing and guiding the learning and doing program. In order to proceed effectively in the planning and selecting of supervised farming programs, instructors must have a good understanding of the natures and purposes of farming programs. This consists of much consideration toward the problem of keeping appropriate records.

The chief purpose of supervised farming programs, is to learn by doing. A well developed program will train present and prospective farmers for proficiency in farming. Supervised farming should develop abilities which will contribute effectively to maximum achievement, leading toward satisfactory establishment in farming.
A program of this kind will have one or more of the following purposes:

1. To provide experiences which will lead to the development of abilities needed in farming.
2. To earn money for personal needs and expansion of the farming program.
3. To lead to the establishment in farming.
4. To improve the farming of the community.
5. To make the home farm a more attractive place to live and to do business.
6. To provide for experimentation.
7. To develop cooperation.
8. To contribute to the development of good citizens.
TYPES OF SUPERVISED FARMING ENTERPRISES

The purpose of this section is to explain the types of farming enterprises that students conduct.

One of the questions that confronts every boy in the agriculture department is: What kind of a farming enterprise should he enter into? To provide for the development of abilities and to secure other desired kinds of outcomes, broad programs of supervised farming are needed and offered. The types of enterprises may be divided into five classes.

1. Productive Enterprise

This type of enterprise may be defined as a business venture in the production of farm crops and livestock which is organized by the student and undertaken for experience, profit and learning. This may also be called an ownership project. It should be large enough to be challenging, without a poor financial risk. It should also contribute to the development of the abilities needed in farming. The enterprise should not compete seriously with the home-farm income.

2. Improvement Enterprise

This type of enterprise consists of undertakings, usually without the prospect of direct financial returns, which are organized and carried out by the student to increase the value of the farm, increase the efficiency of farm business or make the farm a more desirable place to live. This type of enterprise should also contribute to the development of abilities needed in farming. Its scope should be broad enough
to involve planning and the adoption of several approved practices. This enterprise will involve responsibilities extending over a considerable period of time.

3. Supplementary Farm Enterprise
This type of enterprise consists of specific jobs or practices which are organized and performed by the student in addition to his productive and improvement enterprises, in order to secure additional training and experience in farm skills and practices. This practice is of economic importance in farming. It represents established practice on some farms and can be backed by experimental evidence.

4. Placement for Farm Experience
When students enrolled in vocational agriculture do not live on a farm, or lack adequate facilities for productive enterprise projects, placement by the teacher on a good farm with a skillful and understanding farmer provides an excellent opportunity to learn practical agriculture. Systematic farm employment should not be regarded merely as a "job for wages" but rather as an opportunity to learn a variety of farm jobs related to the student's instructional program under the supervision of his agricultural instructor.

5. Father-Son Partnership
A father-son partnership includes, some form of business agreement between parent and son, in which the son increases his investments in the working capital and increases his responsibility in the operation and management of the farm. A satisfactory partnership contains three essential factors:
1. A farm business large enough to support and employ two families.

2. A written business agreement, satisfactory to both parties.

3. A sincere desire to work in partnership.

A successful partnership requires cooperation, or ability for the parent and son to get along together. It is necessary that the son share in the entire farm business so that he has an interest in all phases of farming. Accurate farm records must be kept to carry out an agreement in a manner that is fair to both parties. These records will allow the partners to study more closely the farm operations.
PURPOSE OF RECORD KEEPING

This section attempts to explain why we keep records of supervised farming programs. "Records are of no value in themselves. We only require these records for the information they possess that will help us in our future efforts." 1.

The business man that succeeds is the man that knows what to do, how to do it, and when to do it. Since a farming program is a business it is imperative that records be kept, if the business is to succeed. These records should be kept only for the use that can be made of them. A record for record only, is a complete waste of time and effort. If more consideration was given to the use of records there would be less difficulty experienced in getting students to keep accurate records. Complete and accurate records can be of many uses. Some of them are as follows 2:

1. To use the records for comparing recent results with results of former years. This should enable the student to determine whether his goals are being reached and enable him to profit from mistakes made in the past.

2. To compare the results of one farm with those of other farms. This is an excellent method of exchanging ideas.

3. To make it possible to compare results with plans and goals previously set.

4. To provide information which will be of value in computing income taxes.

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1/ R. W. Haltby (formerly, region agent for Ag. Education in Southern region

2/ Devoe, George P.; Farming Programs in Vocational Agriculture, Interstate 1953
5. To provide data for management operations in raising livestock. Such as breeding dates, birth dates and sires and dams.

6. To provide data on varieties and cultural practices in growing crops. Such as growing season.

7. To provide experiences necessary in developing abilities for keeping and using records.

8. To determine strengths and weaknesses in the enterprises engaged in. This should enable improvements to be made in the future.

9. To check on the efficiency of the farm business; either on the business as a whole or a certain phase of it.

10. To determine the profit or loss, net income, and labor and management returns from the enterprise.

11. To provide data for business agreements in farming, such as father-son partnerships.

12. To provide a basis for revising plans and reformulating goals for the farm business.

13. To provide information for instruction and check on previous instruction.
MOTIVATION

This section deals with the problem of both interest and action of students in keeping and using records.

Keeping records is one phase of work most boys are not particularly interested in, until the value of records is recognized. Since the record book is a most important teaching tool, it should be stressed that the values obtained depends on the manner it is used. To increase the accuracy of his records a well planned method or procedure of keeping records should be established by each boy. It is also a help to the student if a definite day is set aside each week to bring the record books up to date. Trying to get the students enthusiastic about keeping them is a problem that may be approached in various ways, either directly or indirectly. Some of the direct approaches are as follows 1/:

1. Present an example of some well kept records and summaries from previous years, both from the local department and from other departments. Point out the values of these records to the persons that kept them and explain evidence of their use in the long time improvement of the farming programs.

2. An opportunity to discuss the importance of well-kept records so that they may determine outcomes which will indicate their degree of success in meeting goals should be given. It will help them to improve progressively the abilities needed for their farming programs. The keeping of records definitely deserves class time.

1/ Deyoe, George P.; Farming Programs in Vocational Agriculture, Interstate 1953
3. Take the classes on a tour of farms of former students and other farmers who are keeping good records. Proof by these farmers that their records are a most valuable tool on the farm will increase the interest appeal of the students.

4. At several intervals during the year, and from year to year make use of the data from well kept records in the classroom instruction. Samples of this may include brief reports of progress and construction of tables or graphs showing information accumulated from month to month. The question of whether their goals are being reached from information accumulated should be asked.

5. The information supplied from records may be made public by use of newspaper articles, exhibits and demonstrations by the students and instructor.

6. Visiting the home farms and securing the cooperation of the parents will aid greatly in keeping the boys interest aroused.
There are four main requirements for keeping records, namely: simplicity, accuracy, completeness and neatness:

SIMPLICITY

To prevent the task of keeping records from seeming burdensome, it is necessary to keep the record book as simple as possible and still be effective for the purposes that it is to serve. A complicated record book containing terms not readily understood by beginning students does nothing but confuse and discourage the student. The directions should be printed clearly enough; thus making it unnecessary for the instructor to continually re-explain where each item entered is to be recorded. This will avoid a student waiting to record items until the instructor visits his farm; thus forgetting to enter some important data. Record books that require the transferring of figures from one page to another are many times confusing and account for a large per cent of errors which produce inaccurate records. It is a great aid to the student to have each page stand for itself. A book detailed only enough to serve the purpose for which intended, will be more easily understood and used; thus more meaningful. In order for the students to more easily follow a record book it should follow the sequence of the enterprise from planning to the summary.

ACCURACY

All records necessary in carrying the enterprises to satisfactory completion should be accurately kept. If they are not accurate the final figures indicating a profit or loss are of little value and are very misleading. To produce more accurate records some of the important
factors to stress are:

1. Enter all transactions promptly; thus avoiding any guess work later on.
2. Re-check all mathematical calculations before entering a figure in the record book.
3. Checking on entering of all donated labor or items.

Completeness

Another important requirement in keeping records is that they be complete. To be complete records must contain all the significant facts. All facts or transactions should be made promptly, so they are not forgotten. A complete record book will include all plans, credits, debits, inventories and summaries of production enterprises, plus plans and summaries for improvement and supplemental enterprises.

Neatness

To be neat a record book must have all writing and figures that are legible. All permanent records should be in ink, so that in years to come, when referring to the book, the records will still be legible. All figures should be clear and kept in columns. If the record book is kept in the proper place it will always be clean and presentable. By re-checking all mathematical figuring before entering a figure, the student will avoid having to make messy corrections.
The purpose of this section of the paper is to present the findings of the research conducted. The research is divided into four phases:

1. A study and explanation of the Montana Supervised Farming Record Book in its present form.
2. A survey of the Montana Vo-Ag instructors, to determine how the record book in its present form is accepted and what changes they feel are needed.
3. A comparison of the Montana Supervised Farming Record Book with the books used in the various states, to gain ideas that could be incorporated into the Montana book for the benefit of all concerned.
4. A list of suggested changes which the author believes will benefit the student and instructor.
FEATURES OF THE MONTANA RECORD BOOK

The following section will discuss each individual record in the present Montana Record Book; explaining the use and importance of each section. It is necessary to establish these purposes and uses with the student before starting to keep records, in order that the instructor may show the student that his records are most valuable if he is to succeed in his farming enterprise:

LEADERSHIP RECORD

The purpose of the leadership record is to list the leadership activities for the year, including participation in various activities and programs. This points out that agriculture needs local, state and national leaders. Some of the ways to promote student leadership are:

1. By having an organization representative discuss leadership and point out its values.
2. By making public a list of officers and committees of the local chapter.
3. By referring to the FFA degree application forms, the student will see that leadership is a most promising asset.
4. By discussing "How to be a Leader". Include the stating of the necessary requirements, and the benefits that can be gained by being a leader.

LONG TIME FARMING PROGRAM

A long time farming program should be designed to expand and improve from year to year so that the student will show evidence of an establishment in farming and provide for the development of a large number of needed abilities essential to success in farming. The
students planned increases from year to year should be planned so that the growth will be logical and efficient. In developing a farming program the student is limited only by his ambition, determination, knowledge and initiative.

The purpose of a long time farming program is to present a skeleton outline of the program the student hopes to develop and help guide the farming activities in a production enterprise, improvement project and supplementary farm practices which the student feels he can complete.

MAP OF THE HOME FARM

A map of the home farm will give the student a picture of his entire home farm as a business and as a place to live. It will enable the student to study the field arrangement and show the crops grown; the soil treatments of the farm, such as size of fields, waterways, roads, and permanent pasture. The legal description of the home farm should be recorded here. It will assist the student in planning of improvements in the home farm and planning a comprehensive supervised farming program. Some of the methods that may be used to benefit the student in this section of the record book are:

1. Securing a map of the county which shows legal description and have each student locate his farm.
2. Have the students draw a map of their home farm to scale.
3. Secure an air photo of the farm if possible.
4. Have a representative of an abstract firm or the county engineer discuss land surveys or descriptions.
5. Secure maps and other information from the S.C.S.

CROPPING SYSTEM (HOME FARM)

The records kept in this section will enable the student to
determine the value of a crop, and aid in figuring the cost of production. This record will show the results of the crop program for the entire home farm. The field number should coincide with the area designated on the farm map. This record will serve as a means of comparison with various varieties of grains in determining which variety has the greater yield on a particular soil. The cropping record, together with the farm map will demonstrate the results of fertilization and inoculating of seed. The legal description of the field in which the enterprise is grown is also recorded here. Some of the skills this section will develop are:

1. Learn to identify crop seeds and plants
2. Make a soil test
3. Apply commercial fertilizer
4. Inoculate seeds
5. Spray and dust to control insects and diseases
6. Germinate seeds
7. Learn the benefits of summer fallow

LIVESTOCK TABULATION (HOME FARM)

The livestock tabulation record is a home farm record, or one kept of the entire farm, and is divided into a section for the beginning of the year and one for the end of the year. The purpose of the record is to list the amount and kind of livestock on the boy's home farm and to determine the value of it. This section will acquaint the student with various breeds of livestock and will enable the student to see on what basis a herd sire or other breeding stock is bought.

BUSINESS SUMMARY (HOME FARM)
The home farm business summary is for the purpose of recording all the receipts and expenses from all the farm enterprises. The value of self labor is also recorded, thus determining the net farm profit. This will enable the student to analyze the home farm business.

BUDGET (HOME FARM)

The home farm budget is designed to determine the estimated farm labor income for the year. The estimated total receipts and expenses from all farm enterprises are entered. This section emphasizes the capital needed in farming.

DAYBOOK

The daybook is necessary to make records sufficiently complete for providing data which will be of value in summarizing and analyzing results. By keeping a record of approved practices used and important events as they occur it is possible to make more intelligent interpretations. The time required for chore labor should be recorded on a weekly or monthly basis, or for special jobs record the actual time. The daybook will present the ways in which machinery is reducing man's labor. In keeping a record of all the duties performed it will help the student to analyze his work to see if improvements can be made in the timeliness of his operations.

JOURNAL

The journal is the section of a record book in which all operating expenses and receipts, both cash and non-cash, from all farm enterprises should be entered. In the Montana Record Book it is necessary to re-enter all items entered in the first column headed "Cashbook."
in one of the other enterprise columns, depending on which enterprise the entry pertains to. In the column headed "Cashbook" all transactions including that bought and sold on account should be entered except:
land purchased, sold or traded; money borrowed or repaid or paid on account; and buildings and equipment built, purchased, sold or traded. It should be stressed that the student enter unpaid family labor of hired man or anyone who may help with the enterprise, but is not paid. Also the use of a farm owned tractor and truck for this enterprise should be recorded here, as a non-cash expense. Hired labor should be entered as a cash expense. The columns on the right of the enterprise columns may be used for this purpose. A column may also be used for recording expenses and receipts which cannot be charged or credited to any single enterprise, such as repair part for a plow, taxes on the entire farm or money received from working for a farmer for wages. A record should be kept here also of any products, such as milk, eggs or feed, used at home during the year or which is not sold. The journal will show that expenses other than feed, include labor, power and rent for buildings and equipment used.

LIVESTOCK RECORD

The livestock record is divided in two parts. The first is the livestock breeding record and the second is the record of livestock lost. The breeding record contains the information needed in order to prepare for farrowing, lambing, and calving. This information is needed for registering purebred livestock. This section also contains sufficient space to record the offspring born and those raised. The record of livestock lost indicates what livestock was lost, the cause of death and the date of each loss. This information may help to eliminate similar losses in the future, and is needed in evaluating breeding animals.
INVENTORIES

The inventory is the section of the record book which contains a complete list of all items and their values, connected with the enterprise which are on hand at the beginning and end of the year. The inventory section will enable the students to learn what items are to be entered into at the beginning and closing of inventories and the value of items entered. The inventory can be used to determine the investment per acre in regard to the machinery and equipment used for the enterprise. The students will find that it is much simpler to make a direct rental or depreciation charge instead of including buildings and equipment in the inventories. It will serve as a method of keeping the student informed with the market trend for livestock and grain. Some of the points that are well to remember in regard to inventories are:

1. In the opening inventory nothing should be listed which is also included as an item of expense.
2. In the closing inventory nothing should be listed which was previously included as a receipt.
3. In the closing inventory list all items included in the opening inventory which are still on hand.

INVESTMENT IN FARMING

The investment in farming record demonstrates the need for capital in becoming established in farming. If the inventories are complete they will clearly show the total value of all items entered into the enterprise. This includes all livestock and poultry, crop products, buildings and equipment, and farm tools used by the student for the enterprise. This section will enable the student to see how much he has invested in his present program and give him some idea of the capital he will need to reach the goals in his long time farming program.
FINANCIAL STATEMENT

The main purpose of the financial statement is to present a means for the students to determine their net worth at the beginning and at the end of the year. The financial statement will also demonstrate the need for capital in becoming established in farming, and will help to stimulate long-time farming programs. The information entered is confidential and is for the use of the student. When filling out this page it should be indicated how the information is used in the Green Hand, Chapter Farmer, State Farmer and American Farmer degree applications. If possible it would also be of value to present some State Farmer and American Farmer records. At this time it is also well to discuss earning, using and managing money.

ACCOUNTS AND NOTES RECEIVABLE

The accounts and notes receivable record provides a place for the student to keep a record of anything that others owe him. Being similar to the accounts and notes payable record, it contains information on who owes him money, how much and the date it is due. A complete description of the item or items for which the payment is due should be recorded. Also any amounts paid on account with the date paid and balance still due. Entries here should be made promptly to insure an accurate, up-to-date record, since this information is necessary to complete the financial statement.

ACCOUNTS AND NOTES PAYABLE

This financial record is for the purpose of recording anything the student owes. A complete form containing, to whom the money is due, when it is due, and the total amount due is provided. A description of each item purchased on account is recorded. Any amounts paid on account
along with the date paid and the balance still due is also recorded here. Accuracy in this record will prevent unnecessary "over-due" bills which might hinder the students credit standing. A complete record here is also necessary to transfer to the individuals financial statement.

FARM IMPROVEMENT PROJECTS

The records kept by each boy for the improvement project should contain a list of the main jobs performed during the year and the approved practices as they are adopted. The records will include the hours of student labor on these jobs. These improvement projects will show the student how he can improve the home farm and will do much to encourage farm-family cooperation. By providing a list of the improvement projects conducted by the students during the past year, the instructor can help the students raise their goals. Some of these improvements might be:

1. Clearing new land
2. Painting and repairing any farm buildings
3. Developing a home farm shop
4. Landscaping the farm homestead
5. Building a rat-proof crib
6. Constructing a safe bull pen
7. Draining a field
8. Putting in a watering system for livestock
9. Repairing or overhauling a major piece of farm equipment
10. Establishing a young orchard

LABOR INCOME SUMMARY

The labor income summary is for the purpose of determining the labor income derived from each farm enterprise. This record should clearly indicate which enterprise made or lost money and how the success or failure was brought about. This record contains the information needed by the
instructor in making a report to the state department on each individual enterprise.

SUPPLEMENTARY FARM PRACTICES

The use of supplementary farm practices will develop a wide range of skills and abilities needed in farming. They will broaden the training program to the entire farm. The students can gain many new ideas for development in farming by referring to farm magazines. It is also helpful to the student to have the class prepare a list of improved practices and compare them, such as are listed below.

1. Treating grain seed
2. Using 2-4D to control weeds
3. Clean paint brushes
4. Registering a purebred animal
5. Vaccinate poultry to control diseases
6. Candling eggs
7. Castrating pigs
8. Building a pig brooder
9. Grease an implement
10. Change oil in a tractor

ENTERPRISE PLANS AND ANALYSIS

This section of the record book consists of three sections: first, the enterprise budget; second the goals and standards and third the detailed plans.

The budget will aid in the analysis of each enterprise. The student records both the estimated and actual receipts and expenses; thus arriving at the total labor income, both estimated and actual. Plans include the goals to be achieved and the methods or ways and means to be employed in reaching the objectives. This section will prove that achievements are determined by
the goals set; and success in farming is determined by the goals reached. Making the plans for an enterprise is not easy. It requires original thinking and though emphasized at certain periods, must be continuous. This will enable changes in plans to be made from time to time according to developments in the enterprise. Some of the factors to be included in the enterprise plans are:

1. The size of the enterprise
2. The quality of the product
3. Why the student is interested in the project
4. How will finances be secured
5. Where will seed or stock be secured
6. Where will animals be housed
7. Arrangements made for land, tools and machinery
8. How will product be marketed
9. How will profit from project be used
10. Is the project insured
11. What knowledge or experience does the student hope to gain from the project
12. With what diseases or pests is the student apt to have trouble and what will be done to control them
13. Will the student exhibit the project
SURVEY OF PRACTICES & OPINIONS
OF
MONTANA VO-AG INSTRUCTORS

To get the opinion of the present Montana record book from other individuals who perhaps have worked with it longer than the author; a survey was conducted of the Montana Vo-Ag instructors. Since it is their responsibility to guide and direct the students in using the book, they know what the reactions of the students are toward the book and whether it is one they will carry-over into the farming business after completion of high school. A questionnaire was sent to sixty departments in the state, with forty three returns, or about seventy-one percent. A sample of the questionnaire is shown on illustration 1 of the appendix. These replies indicated that there are sections of the book most instructors feel are meeting the requirements of a good record book, and some sections they feel are in need of improvement. Complete results of the survey are shown on illustrations 1, 2, 3, and 4.

Although the majority of Montana instructors use the Montana Supervised Farming Record Book, six instructors stated they used other books which they thought produced better results. Of these six, two use the John Deere Book, one used the book by Spantons from the U. S. Department of Education and the other three used books they devised on their own. The instructors that do use the book use it as a teaching aid.

Of the forty three replies received, nearly fifty percent stated they found the record book inadequate. The reasons for this varied. Many thought the book too complicated, many felt explanations for each section were needed and many thought the records should follow the income tax forms more closely. On the whole they expressed the need of a simpler record book to create interest in the students toward keeping good records.

In regard to the amount of class time spent on the records, the instructors
ILLUSTRATION I

PARTIAL RESULTS OF SURVEY

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<td>1. Use the Montana record book</td>
<td>37</td>
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<tr>
<td>2. Use the Montana record book as a teaching aid</td>
<td>37</td>
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<tr>
<td>3. Feel competent in the use of the present record book</td>
<td>25</td>
<td>14</td>
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<td>4. Think the present record book is adequate</td>
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The above illustration indicates the number of returned questionnaires having each reply.
ILLUSTRATION II
SECTION BELIEVED LEAST IN NEED OF IMPROVING

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<th>SECTIONS MENTIONED</th>
<th>PER CENT RESPONDING</th>
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The above illustration indicates the per cent of returned questionnaires having each reply.
ILLUSTRATION III

SECTION BELIEVED MOST IN NEED OF IMPROVING

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<tr>
<th>SECTIONS MENTIONED</th>
<th>PER CENT RESPONDING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor Income Summary</td>
<td>26</td>
</tr>
<tr>
<td>Plans &amp; Analysis</td>
<td>19</td>
</tr>
<tr>
<td>Inventory</td>
<td>15</td>
</tr>
<tr>
<td>Business Summary</td>
<td>10</td>
</tr>
<tr>
<td>Home Farm Budget</td>
<td>8</td>
</tr>
<tr>
<td>No Improvement Needed</td>
<td>6</td>
</tr>
<tr>
<td>Financial Statement</td>
<td>4</td>
</tr>
<tr>
<td>Daybook</td>
<td>4</td>
</tr>
<tr>
<td>Journal</td>
<td>2</td>
</tr>
<tr>
<td>Improvement Projects</td>
<td>2</td>
</tr>
<tr>
<td>Livestock Records</td>
<td>2</td>
</tr>
<tr>
<td>Cropping System</td>
<td>2</td>
</tr>
</tbody>
</table>

The above illustration indicates the per cent of returned questionnaires having each reply.
ILLUSTRATION IV
SECTION STUDENTS FIND MOST DIFFICULT

<table>
<thead>
<tr>
<th>SECTIONS MENTIONED</th>
<th>PER CENT RESPONDING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor Income Summary</td>
<td>38</td>
</tr>
<tr>
<td>Inventory</td>
<td>18</td>
</tr>
<tr>
<td>Home Farm Budget</td>
<td>13</td>
</tr>
<tr>
<td>Business Summary</td>
<td>11</td>
</tr>
<tr>
<td>Plans &amp; Analysis</td>
<td>8</td>
</tr>
<tr>
<td>Journal</td>
<td>7</td>
</tr>
<tr>
<td>No Difficult Sections</td>
<td>3</td>
</tr>
<tr>
<td>Daybook</td>
<td>2</td>
</tr>
</tbody>
</table>

The above illustration indicates the number of returned questionnaires having each reply.
averaged about twelve days a year for each class; however many departments spent only five days a year. More time was spent for the freshman students in order to acquaint them with the book.

In reply to the question of which section the instructors thought was least in need of improving, approximately thirty-eight percent of the instructors felt completely satisfied with the present journal if they gave an oral explanation about what the record should consist of. About seventeen percent were satisfied with the home farm business summary and the inventory and daybook followed closely in satisfaction.

The labor income summary was the section which was most often thought in need of improvement. In all cases the instructor expressed need for a simplier record. The plans and analysis and inventory rated high among the list for need of improving also. It was noted that six percent of the instructors thought the present record book was completely satisfactory and needed no alteration.

The section which the students found most difficult was similar to the results of where the instructors thought the most improvement was needed. This result showed that thirty-eight percent of the instructors found their students having trouble with the labor income summary. Many instructors suggested that either examples or explanations of each section would help simplify the records.

Only twenty-five of the forty-three replies received stated that they felt competent in the use of the present record book. Several instructors suggested that the instructors guide be kept up to date along with the record book.
COMPARISON WITH OTHER STATES

To compare the Montana record book with those of other states, a copy of the record book used in each state was obtained. This comparison proved both interesting and beneficial since it presented new ideas which other states feel produce effective results.

Four states use a loose-leaf type record book in which the student obtains only the sections needed for his enterprise, or individual enterprise sheets. This eliminates extra pages which the student may not use.

Several of the books provided examples of each section to illustrate how transactions should be entered. Some books suggested a list of farming activities and skills for each type enterprise.

Only a few of the books entered into the home farm facts as much as the Montana book. In most cases a sheet on the survey of the home farm appeared and this contained just facts with no financial information.

The idea of using a question-answer method for recording enterprise plans and agreement was presented by several books. The use of this procedure would eliminate the omitting of necessary information from the plans. The appropriate questions are printed; thus requiring the student to answer each one. This also serves the purpose of a business agreement since it is signed by the student, parent and instructor.

A large percent of the books include in the journal, one column for cash transactions and one for non-cash transactions. The inventories and daybook are very similar to those in the Montana book.
The information obtained in this study leads the author to believe that the suggested changes would render the record book more usable by the students and the instructors of vocational agriculture in Montana. The suggested changes are in the following sections:

1. Organization
2. Key to home farm map
3. Explanation before each section
4. Journal
5. Enterprise plans and agreement
6. Labor income summary

ORGANIZATION OF THE ENTIRE RECORD BOOK

The order in which the record book is presented is of importance to the student. If the records follow the sequence of the enterprise, the student will find that he will more clearly see what his next step is going to be in keeping adequate records. This will present an answer to the question of, "What do I do next?" The following order of presentation will closely follow the development of the enterprise.

1. Leadership record
2. Long time farming program
3. Farm map
4. Home farm cropping system
5. Home farm livestock tabulation
6. Goals and standards
7. Enterprise budget
8. Business agreement
9. Detailed plans
10. Farm improvement projects
11. Supplemental farm practices
12. Daybook
13. Journal
14. Accounts and notes receivable
15. Accounts and notes payable
16. Inventory
17. Labor income summary
18. Financial statement

KEY FOR FARM MAP

One of the things believed to be a great aid to the student is to have a definite key set up to use in presenting a more complete picture of their farm. See illustration 5. By having all the students use the same plan or key the records will appear neater and will be more easily followed in locating a definite area. Features commonly used on the farm map have been listed on the illustration; however sufficient space should be provided for extra features along with their symbol. The symbols suggested are those used by the Soil Conservation Service.

This is the section of the record book where the legal description should be entered, since all of this information pertains to the exact location of all the areas on the farm and surrounding the farm.

EXPLANATIONS FOR EACH SECTION

Another step which would be of assistance to students is a short, but adequate explanation of each section of the record book. This explanation should clearly state what is to be recorded in each record and which column it should be entered in. If the student knows where a transaction should
ILLUSTRATION 5
KEY TO BE USED ON HOME FARM MAP 1/

FENCE LINE
BUILDINGS
DITCH
WELL
ROAD
CROP BOUNDARY
RAILROAD
STREAM-RIVER
MARSH

TREES-SHRUBS
TELEPHONE LINE
ELECTRIC LINE
PIPELINE
TILE
PONDS
TERRACES
CONTOURS
SOIL TYPES

1/ Soil Conservation Service
be entered it will insure more prompt entries to be made. Explanations should also define any terms used in the record which may seem confusing or might be misunderstood by the average student.

**JOURNAL**

Since it is necessary to emphasize the fact that products used at home and feed, seed or other supplies obtained from the parent be entered in the journal; a journal sheet which will better present this fact to the students has been prepared. See illustration 6. The only change in this journal from the present journal is in the cashbook; where it is divided into two sections. The first column is for entering cash or paid transactions and the second column for entering the non-cash or unpaid transactions. In this plan all receipts and expenses including those for land or buildings will be entered. Interest paid on money borrowed should be entered, but not the payment on the principal.

**BASIC ENTERPRISE PLANS AND AGREEMENT**

To assure the student that he has included all the basic information necessary for his enterprise; a new record was formulated. See illustration 7. The proposed record consists of questions for the student to answer regarding all the basic data connected with the enterprise. Since this record covers only the basic information needed it is suggested that the page following this be used for the student to enter the detailed plans for his enterprise.

This record should replace the "general statement" since it was found that many of the students have little or no idea what the phrase, "general statement", which is used in the present record book, means or includes. The proposed, clearly states an agreement which is a simple practice of good business. This business agreement will insure an understanding between the student, parent and instructor of the arrangements under which the farming program is to be conducted; however it should not be considered a binding
PROPOSED JOURNAL

<table>
<thead>
<tr>
<th>DATE</th>
<th>Complete Description of item, amount, kind, price, etc.</th>
<th>CASHBOOK</th>
<th>ENTERPRISE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Enter Cash Transactions</td>
<td>Enter Non-cash Transactions</td>
</tr>
</tbody>
</table>

(Illustration 6)
ILLUSTRATION VII
PROPOSED BASIC ENTERPRISE PLANS AND AGREEMENT

1. What is the main product of your enterprise?

2. What is the scope of this enterprise? (acres, head etc.)

3. Why are you interested in this project?

4. How much do you expect to produce per head or acre?

5. When will the project begin _____ and end? _____

6. If a livestock or poultry enterprise where will it be kept?

7. If a crop enterprise, give location of field.

8. Where will feed or stock be secured?

9. What breed or variety will you raise?

10. What arrangements have you made for land, tools and machinery?

11. What percent of the labor will you perform?

12. What jobs are to be hired?

13. What approved practices do you plan to use in carrying out this enterprise?

1. __________________________ 4. __________________________

2. __________________________ 5. __________________________

3. __________________________ 6. __________________________
14. Is your project insured?

15. Where will the product be marketed? When?

16. How much money will be needed to carry out this enterprise?

17. How much money will you need to borrow?

18. From whom do you plan to borrow and when will it be repaid?

19. Will you exhibit your project?

20. How will profit from the project be used?

RENTAL OR TRADE AGREEMENT:

My parent, or landlord, Mr. ________________ agrees to do or furnish these things: ____________________________________________

I agree to do or furnish these things: ____________________________________________

From the profit of this enterprise Mr. ________________ will receive ________________

I am to get: ____________________________________________

The plans and agreements for this enterprise meet the approval of the undersigned:

_________________________________________ Student

_________________________________________ Instructor

_________________________________________ Parent

_________________________________________ Date
contract. This will help prevent misunderstandings and disappointments later on and will serve as a guide and reminder throughout the development of the program during the year. It will teach the student to plan, follow a plan and to be responsible.

LABOR INCOME SUMMARY

The criticisms found in the labor income summary are that it looks and is too complicated for the average student, and that the entire cost of new equipment is charged against one year's enterprise.

In the proposed summary (see illustration 8) only the depreciation will be charged on that year's enterprise and the total number of entries will be lessened; thus reducing the chances of error.

All entries can be taken directly from the journal or inventory totals as the case may be. The final figure should be a more true and accurate one.
### Proposed Labor Income Summary

1. Value of goods sold
2. Value of closing inventory
3. **Total Credits** (Add lines 1 & 2)
4. Value of expenses
5. Value of beginning inventory
6. Interest @ 6% on average inventory
7. **Total Expenses** (Add lines 4, 5, & 6)
8. **Labor Income** (Line 3 - Line 7)
9. **Value of Self Labor** ________Hrs.________
10. **Net Profit** (Line 8 - Line 9)
11. Boys share in income
12. **Total Production** (Number of lbs., bu., head, etc.)
13. **Profit Per Unit of Production** (Line 8 + Line 12)
PART III

SUMMARY

Supervised farming records, if kept and used correctly, are one of the most valuable assets in the business of farming. The information contained in these records make it possible for the student to stay continually informed on the past and present efficiency of his farming enterprise.

Since record keeping is so important it is necessary for the instructor to present and emphasize methods of keeping the students enthusiastic about this task.

Four important requirements of record keeping are: simplicity, accuracy, completeness and neatness. Simplicity is necessary to establish student interest and promote the carry-over of the book into the students farming business. Accuracy is an important factor since the figures entered indicate the profit or loss of the enterprise. A complete record is needed to present all the significant facts pertaining to the farming program. Records must be legible if they are to be of adequate use at present and in the future.

Each of the sections of the Montana record book has its own purpose and use, and these must be established with the student before starting to keep records.

Eighty six percent of the Montana Vo-Ag instructors use the Montana record book; however less than fifty percent think it is doing an adequate job. The major criticism of the present book is that it is too complicated for the average student. It is believed that if more class time was spent on record keeping and some sections of the record book were simplified this difficulty could be overcome; however in comparing the Montana record book with those used in other states it has been found that on the whole it compares most favorably.
The principle changes suggested are:

1. Organize the sections of the record book to follow the sequence of the enterprise as it develops.
2. Provide a definite key for the farm map.
3. Include the legal description on the farm map sheet.
4. Provide a basic enterprise plan record, including a business agreement.
5. Provide explanations for each section.
6. Include both cash and non-cash columns in the cashbook of the journal.
7. Simplify the labor summary sheet.
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ILLUSTRATION 1

QUESTIONNAIRE SENT

1. Do you use the Montana Supervised Farming Record Book? __________________

2. If you do not, what book do you use? ____________________

3. Do you use the record book as a teaching aid? & ____________________

4. How much class time is spent on supervised farming records? ______________

5. Do you think the Montana record book is adequate? ____________________

6. Which part of the record book used do you think is least in need of improvement? ____________________

7. Which part or parts do you think is most in need of improvement? ________

8. Which part do the students find most difficult? ____________________

9. Do you feel competent in the use of the record book? ____________________

Comments: