

Lesson F3–1

Keeping and Using SAE Records

Unit F. Supervised Experience in Agriculture/Horticulture

Problem Area 3. Expanding My SAE

Lesson 1. Keeping and Using SAE Records

New Mexico Content Standard:

Pathway Strand: Communications

Standard: III: Employ technical communications effectively to maintain good records and reporting procedures.

Benchmark: III-A. Use technical communications to document work and process information.

Performance Standard: 1. Record technical information. 2. Compose technical reports. 3. Communicate documentation to others. 4. Maintain Record Books for SAE program.

Student Learning Objectives. Instruction in this lesson should result in students achieving the following objectives:

1. Explain how SAE records are organized.
2. Identify the procedures to making entries in the SAE records.
3. Explain how to summarize and analyze the SAE records.

List of Resources. The following resources may be useful in teaching this lesson:

Recommended Resources. One of the following resources should be selected to accompany the lesson:

Chelewski, Ray E., Jasper S. Lee, Elizabeth M. Morgan, and Elizabeth Wilson. *AgriScience Explorations*. Danville, Illinois: Interstate Publishers, Inc., 2000. (Textbook, Chapter 21)

National FFA Organization. *FFA Student Handbook*. Alexandria, Virginia: National FFA Organization, 1995.

National FFA Organization. *Official Manual*. Indianapolis, Indiana: National FFA Center, 1998.

SOE Programs in Agriculture. (VAS Unit #7003). Vocational Agricultural Service, College of Agriculture, University of Illinois, 1410 S. Maryland Drive, Urbana, IL.

Other Resources. The following resources will be useful to students and teachers:

Cooper, Elmer L. and Bret Iverson. *Agriscience Fundamentals and Applications*. Albany, New York: Delmar Publishers, Inc., 1997. (Textbook, Unit 6)

Fraze, Steven D., Sharon Hunter, Marshall Stewart, Brenda Scheil, and Robert Terry, Jr. *Developing Leadership and Personal Skills*. Danville, Illinois: Interstate Publishers, Inc., 1997. (Textbook, Appendix A)

List of Equipment, Tools, Supplies, and Facilities

Writing surface
Overhead projector
Transparencies from attached masters
Copies of student lab sheets

Terms. The following terms are presented in this lesson (shown in bold italics):

Accounts payable
Accounts receivable
Cash flow statement
Depreciation schedule
Expense record
Financial statement
Inventory
Production records
Profit/Loss statement
Record of receipts

Interest Approach. Use an interest approach that will prepare the students for the lesson. Teachers often develop approaches for their unique class and student situations. A possible approach would be to invite a successful business person or area farmer who was a former agriculture student with an SAE. Have them discuss how the record-keeping skills developed through their SAE prepared them for success. Have a local financial manager come to your class and discuss the value of good records when establishing credit.

Summary of Content and Teaching Strategies

Objective I: Explain how SAE records are organized.

Anticipated Problem: How are the records organized for the SAE programs?

- I. Understanding some basic principles and procedures of agricultural accounting will help in setting up the SAE records.
 - A. A complete record system will provide the necessary information to accomplish the following tasks:
 1. Report information for taxes.
 2. Develop an annual profit/loss statement.
 3. Account for strengths and weaknesses of the business.
 - B. A complete record system should have the following components:
 1. An inventory.
 2. A depreciation schedule.
 3. A financial statement.
 4. A record of receipts.
 5. An expense record.
 6. A profit/loss statement.
 7. A cash flow statement.
 8. Production records.
 9. Records of accounts payable and accounts receivable.
 - C. An **inventory** is a list of assets on hand and their value at a particular time.
 1. Taking and recording inventories is one of the first steps in starting a record system.
 2. A complete inventory includes both quantities and values.
 - D. A **depreciation schedule** is a method of distributing the cost of capital items over the life of the asset.
 - E. A **financial statement** is a listing of assets, liabilities, and net worth of a business.
 1. It is a picture of the financial position of a business at any point in time.
 2. It is also called “balance sheets” or “net worth statements.”

- F. A **record of receipts** includes a record of cash sales and other receipts, which come into the business during the year.
- G. An **expense record** will include cash expenses, which were paid during the year.
- H. A **profit/loss statement** will show how the business has performed financially.
- I. A **cash flow statement** is a record of the cash generated to meet the demands of the business.
- J. **Production records** analyze specific enterprises within the business to identify the strengths and weaknesses.
- K. **Accounts payable** and **accounts receivable** are records of short-term credit used (accounts payable) or extended (accounts receivable).

Several teaching techniques can be used in helping students understand this objective. Text materials will enhance student learning. VAS Unit 7003 “SOE Programs in Agriculture” is recommended. Use TM: F3–1A to help students understand the components of a complete record system. Make transparencies of selected pages of SAE record books to show students the various components.

Objective 2: Identify the procedures to making entries in the SAE records.

Anticipated Problem: What are the proper procedures to follow in making entries in the SAE records?

- II. There are several major steps to follow in making entries in the SAE records.
 - A. Become familiar with the record book before starting to use it.
 - B. Read carefully all directions and instructions given in the record book.
 - C. Use bookmarkers to help identify key pages.
 - D. Always use a sharp pencil with medium to hard lead.
 - E. Develop good record keeping habits.
 - 1. Make entries regularly.
 - 2. Set aside time on a regular basis.
 - 3. Keep records up to date.
 - 4. Keep entries on a calendar and transfer them to your record books.
 - 5. Enter complete information for all items.
 - F. There are five major steps in making entries in a record book during the year.
 - 1. Step 1—Set up the depreciation schedule
 - 2. Step 2—Enter the beginning inventories. After the first year, the end-of-year inventory becomes the beginning-of-the year inventory for the next year.
 - 3. Step 3—Enter records of receipts, expenses, and production.
 - a) Enter these records as they occur.

- b) Most record books provide two columns for entering each receipt and expense item. One is a total column where all receipts of all expenses are entered. The other columns classify each entry as to the kind of receipt or expense.
4. Step 4—Complete the depreciation schedules for the year.
 - a) Bring the depreciation schedules up to date at the end of the year.
 - b) Check the “sales of capital items” for depreciable items that have been sold.
 - c) Transfer items in “purchase of capital items” and “purchase of breeding stock” to the depreciation schedules.
 - d) Calculate the depreciation for the year.
 - e) Calculate the remaining cost at the end of the year.
 5. Step 5—Enter the end of the year inventories.
 - a) After making all entries of receipts, expenses, and production for the year, you are ready to complete the records.
 - b) This is a record of all items on hand at the end of the year, usually December 31.

Numerous teaching techniques can be used to help students understand the proper procedure to follow in making entries in their SAE records. Text materials will assist in student learning and VAS Unit 7003 “SOE Programs in Agriculture” is recommended. Use TM: F3–1B to help students understand the five major steps in making entries in their SAE record books. Have successful students visit the class and discuss some of their procedures they have used in keeping their SAE records.

Objective 3: Explain how to summarize and analyze the SAE records.

Anticipated Problem: How do I summarize and analyze the information in my SAE records?

- III. In completing and summarizing records, check for completeness and accuracy.
 - A. Check the livestock numbers and feed and grain quantities.
 1. Check numbers appearing as purchases, sales, and beginning and ending inventories along with birth, weaning, and death loss records.
 2. Similarly, quantities of feed and grain fed, purchased, sold, and used for seed must be totaled.
 - B. Total and check the receipt columns.
 1. Since most receipt items are entered in two places, an “amount received” column and in a separate classifying column, these items can be cross-checked.
 2. The sum of the totals of the classifying columns must equal the total amount received.
 3. A check should be made on each receipt page as well as on the final receipt page.
 - C. Total and check the expense columns.
 1. The totals of the classifying columns should check with the total in the “amount paid out” column.

2. If hired labor is recorded separately from other expenses, these figures need to be totaled and checked.
- D. Complete and check inventories.
 - E. Check the depreciation schedules.
 1. All items in the depreciation schedules should be completed through the “remaining costs at the end of the year” columns.
 2. Total the columns for “the remaining cost at the beginning of the year”, “the depreciation this year” and “the remaining cost at the end of the year.”
 - F. Total the columns for beginning and end-of-year inventories.
 - G. Complete a farm business summary to indicate the profitability of the business.
 - H. Complete the various business analysis records to determine the measures of efficiency of the operation.

Use a variety of teaching techniques to help students understand how to summarize and analyze their SAE records. Text material will enhance student learning. VAS Unit 7003 “SOE Programs in Agriculture” is recommended. Use TM: F3–1C to illustrate one method of summarizing farm business records. Use TM: F3–1D to illustrate one form of analysis of production records. Use LS: F3–1A for students to summarize their SAE programs. Use LS: F3–1B for students to evaluate their SAE program.

Review/Summary. Use the objectives for the lesson as guides in reviewing and summarizing the content. Have the students explain the content associated with each objective. Use questions at the end of the chapter of the text materials as review.

Application. Students can apply the content of this lesson in their agricultural education and FFA activities. The following lab sheets provide excellent application of the objectives.

Keeping and Using SAE Records—LS: F3–1A

Self Evaluation of My SAE Program—LS: F3–1B

Evaluation. Assessing the extent to which the students have achieved the objectives can be based on participation in reviewing and summarizing the lessons as well as attentiveness throughout. A written test can also be given. A sample written test is attached.

Answers to Sample Test:

Part One: Matching

1 = e, 2 = a, 3 = b, 4 = d, 5 = c, 6 = f

Part Two: Completion/Short Answer

1. List five record keeping habits to develop with the SAE records.
 - A. Make entries regularly.

- B. Set aside time to make entries.
 - C. Keep records up to date.
 - D. Keep entries on a calendar.
 - E. Enter complete and accurate information.
2. A complete record system will provide the necessary information to accomplish the following three tasks:
- A. Report information for taxes.
 - B. Develop an annual profit/loss statement
 - C. Account for the strengths and weaknesses of the business.

Test

Lesson F3–1: Keeping and Using SAE Records

Part One: Matching

Instructions. Match the term with the correct response. Write the letter of the term by the definition.

- | | |
|------------------------|--------------------------|
| a. inventory | d. depreciation schedule |
| b. expense records | e. record of receipts |
| c. cash flow statement | f. production records |

- _____ 1. A record of cash sales during the year.
- _____ 2. A list of assets on hand and their value at a particular time.
- _____ 3. A record of bills paid during the year.
- _____ 4. Method of distributing the cost of capital items over the life of the asset.
- _____ 5. A record of how a business generates cash to meet demands.
- _____ 6. Provide the necessary information to analyze specific enterprises within the business for strengths and weaknesses.

Part Two: Completion/Short Answer

Instructions. Provide the word or words to complete the following statements.

- List five good record keeping habits to develop with the SAE records.
 -
 -
 -
 -
 -
- A complete record system will provide the necessary information to accomplish the following three tasks:
 -
 -
 -

COMPONENTS OF A COMPLETE RECORD SYSTEM

- **Inventory**
- **Depreciation schedule**
- **Financial statement**
- **Record of receipts**
- **Expense records**
- **Profit/loss statement**
- **Production records**
- **Records of accounts payable**
- **Records of accounts receivable**

FIVE STEPS TO MAKING ENTRIES

- **Step 1—Set up the depreciation schedule.**
- **Step 2—Enter the beginning inventories.**
- **Step 3—Enter records of receipts, expenses, and production for the year.**
- **Step 4—Complete the depreciation schedule.**
- **Step 5—Enter the end-of-year inventories.**

SUMMARY OF THE FARM BUSINESS

<u>Item</u>	<u>Amount</u>
1. Total cash receipts	\$ _____
2. Total cash expenses	\$ _____
3. Cash balance (line 1 minus 2)	\$ _____
4. Inventory change (+ or -)	\$ _____
5. Capital value change (+ or -)	\$ _____
6. Home raised products used by household	\$ _____
7. Net farm income (returns to unpaid labor, capital, and management)=(line 3+4+5+6)	\$ _____

TOTAL LIVESTOCK RETURNS AND WEIGHT PRODUCED

A. Item	Weight	Value
Ending Inventory	_____	_____
Sales of livestock	_____	_____
Sales of livestock products	xxxx	xxxx
Death Loss	_____	xxxx
Totals	_____	_____
B. Item		
Beginning inventory	_____	_____
Purchases	_____	_____
Totals	_____	\$ _____
Weight produced (A total minus B total)	_____	xxxx
Livestock returns (A total minus B total)	xxxx	\$ _____

Lab Sheet

Keeping and Using SAE Records

Name _____

SAE Program for calendar year _____

Brief Description of SAE program

I. Ownership Program

A. Ownership project #1 _____

- | | | | | |
|----|---------------------|----|-------|------|
| 1. | Gross Income | \$ | _____ | |
| 2. | Hours of self-labor | | _____ | hrs. |
| 3. | Labor expenses | \$ | _____ | |
| 4. | Capital expenses | | _____ | |
| 5. | Equipment expenses | | _____ | |
| 6. | Production expenses | | _____ | |
| 7. | Total expenses | | _____ | |
| 8. | Net Income | \$ | _____ | |
| 9. | Net Income per unit | \$ | _____ | |

B. Ownership project #2 _____

- | | | | | |
|----|---------------------|----|-------|------|
| 1. | Gross income | \$ | _____ | |
| 2. | Hours of self-labor | | _____ | hrs. |
| 3. | Labor expenses | \$ | _____ | |
| 4. | Capital expenses | | _____ | |
| 5. | Equipment expenses | | _____ | |
| 6. | Production expenses | | _____ | |
| 7. | Total expenses | | _____ | |
| 8. | Net Income | \$ | _____ | |
| 9. | Net Income per unit | \$ | _____ | |

C. Ownership project #3 _____

- | | | | | |
|----|---------------------|----|-------|------|
| 1. | Gross income | \$ | _____ | |
| 2. | Hours of self-labor | | _____ | hrs. |

3. Labor expenses	\$	_____
4. Capital expenses		_____
5. Equipment expenses		_____
6. Production expenses		_____
7. Total expenses		_____
8. Net Income	\$	_____
9. Net Income per unit	\$	_____

II. Placement Program

Employer(s): _____

1. Hours of paid work experience	_____	hrs.
2. Hours of unpaid work experience	_____	hrs.
3. Gross income	\$	_____
4. Rate of pay	\$	_____
5. Net income (take home pay)	\$	_____

III. Major Improvement Projects

	Project	Hrs. Labor
A.		
B.		
C.		
D.		

IV. Areas of Supplementary Skills Gained

(e.g., landscaping, beef production, vegetable production, agricultural sales, etc.)

- A.
- B.
- C.
- D.

Lab Sheet

Self-Evaluation of My SAE Program

Student Name _____ Date _____

SAE Program for _____

- I. Use the checklist below to complete a year-end evaluation of your SAE program. As you rate each item, think about what is possible and desirable for you in your SAE program.
- II. Write a one page analysis of your SAE program, using the items listed in the checklist. Focus on the strengths and weaknesses of your SAE program.

Excellent Good Fair Poor

- 1. Neatness of record book
- 2. Completeness of record book
- 3. Accuracy of records
- 4. Quality of annual plan
- 5. Degree to which available opportunities were used
- 6. Progress/activity during the year
- 7. Skills developed
- 8. Knowledge gained
- 9. Level of challenge provided
- 10. Degree of management responsibility
- 11. Efficiency rating of ownership projects
- 12. Achievement of personal career goals
- 13. Degree of expansion
- 14. Use of approved practices
- 15. Overall value of SAE program