ANALYSIS AND MODIFICATION OF THE COSTFINDER FARM RECORD SYSTEM TO ENHANCE USER APPLICATION

By

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CHAPTER I

INTRODUCTION

Many farm record systems have become available to farmers from many sources in recent years. Most provide accurate tax and accounting information, but this is where the likeness ends. The organization, the format, and the kind and number of management factors provided are unique to each system. Some differences are due to the various purposes for which the systems were created. These systems vary from a simplified cash flow to a detailed analysis of financial and production factors. While one record system may excel in one area or the other, flexibility in fulfilling the different objectives of the farmer will enhance broad acceptance of the system.

Regardless of the purpose, presentation of facts in such a way that problem areas can be identified and solved is an important factor to consider in the design of any farm accounting system. Limitation of the number of income and expense categories may cause aggregation of items which should be analyzed separately. Cash crops or grain may be lumped into one total, while expansion of a table or a logic change in the program to print each item as it is totaled would allow detailed analysis. However, the length and complexity of computer printouts can be discouraging to some farmers. Clearly, there is a trade-off between the number of detailed analysis factors and the amount of information the farmer is willing to study.

Problem Statement

Costfinder, Oklahoma State University's computerized farm record program, has been operating since 1966.[1] It consists of twenty-two source programs written in COBOL, COmmon Business Oriented Language. It requires time to evaluate the effectiveness of a system of computer programs such as Costfinder. Improvements in computer technology, accounting procedures, and financial efficiency factors, have evolved since the program was initiated in 1966. While change for the sake of change is not desirable, well planned modifications based on constructive suggestions and actual experiences are worthy of consideration. The most frequent suggestion reflects the farmers' difficulty in interpreting the Costfinder output.

For example, Costfinder provides the information necessary to calculate a balance sheet and net worth statement. However, the information is not printed in a form that rural bankers and credit officers are accustomed to analyzing. Also, the results of individual enterprises are printed so that Machinery Use for all enterprises appears on one page followed by Fuel Used, Labor Summary, Inventory Analysis, Cash Flow Summary, and Production Summary. As a result, the farmer must analyze enterprise information that is printed on eight or ten different pages. Changes in the logic of the program would print all information related to one enterprise on one or two consecutive pages. The remaining enterprises would be printed one after the other.

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[1] Costfinder, Computerized Oklahoma State Farm Income and Detailed Enterprise Records, was initiated in 1966 by Dr. Ted R. Nelson, Extension Economist, Farm Management.

Readability is another factor to be considered in computer printouts. Farmers indicate that too much information printed on a page can make interpretation difficult. On the other hand, many criticisms indicate that a large number of pages of output can also be discouraging. Obviously, if objectives were established to print less information per page and to reduce the number of pages of output they would be conflicting.

Some difficulty exists in making substantial changes to a program or programs in a system such as Costfinder. Revision of one program will probably cause revision in many if not all the other programs in the system. Realizing that the actual programming will come from several sources, coordination of the different program changes, to assure their compatibility, becomes a part of the overall problem.[2]

Cost is a major factor influencing the number of farmers who use Costfinder. Since computer cost is a substantial percent of the total cost, the reduction of these costs should be included in the objectives of the study. Also, the amount of time required to report the input data discourages some farmers.

While the preceding description has been general, the objectives of this study will fall into two categories:

1. Coordinate modification of all programs.
2. Improve the readability, organization, and understanding of the Costfinder printouts.

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[2]To avoid having each of several researchers analyze and implement changes to a program or programs, the desired changes to all programs were coordinated in this study. The actual programming sources will be indicated in the footnotes.

Procedure

From 20 farms in 1966, Costfinder has grown to 145 farms in 1972. In this time, many suggestions for improvement, criticisms, and indications of satisfaction have been collected and filed. Other suggestions have come from Area Farm Management Specialized Agents' Training Sessions and the Farm Cooperator Advisory Board meeting.[3] The Extension Farm Management staff also contributed new ideas and possible problems. From these sources of information, a list of possible programming changes was compiled. These changes were classified according to their purpose and the program or section of the program to which they applied. The proposed changes included a typed representation of the computer printout, the required modification of input data, an estimation of the cost and time required to accomplish the programming modifications, and the increase or decrease in amount of paper output generated by the proposed addition or improvement.

The next step was to present the typed representation of the computer printout and the required input data modification to the Farm Management staff, Area Agents, and the Costfinder cooperators. These will be discussed in the following chapters. The purpose of the questionnaire, Figure 1, was first to determine whether change was desired in the particular area. Then if change was desired, suggested improvements or alternations to the typed representations were requested. Space was provided for suggested changes not included in the questionnaire,

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[3]Hereafter the Area Farm Management Specialized Agents will be called Area Agents.

COOPERATIVE EXTENSION SERVICE

OKLAHOMA STATE UNIVERSITY
EXTENSION PROGRAMS IN AGRICULTURE

UNIVERSITY EXTENSION
STILLWATER 74074

QUESTIONNAIRE

	Section 2	Section 3A	Section 3B
1. Do you think these sections should be changed?	_____	_____	_____
2. Do you think the cooperator would be willing to pay extra for these changes?	_____	_____	_____
If so, how much?	_____	_____	_____
3. What priority ranking would you give these changes?	_____	_____	_____

Include other possibilities you feel should be considered and general comments:

WORK IN AGRICULTURE, HOME ECONOMICS AND RELATED FIELDS
USDA - OSU AND COUNTY COMMISSIONERS COOPERATING

Figure 1. Questionnaire

and finally, a ranking of the priority given to each of the areas of change was determined. By presenting only input data changes and proposed output changes, a true evaluation of the area of change can be obtained. Area Agents and farmers have little information on which to estimate cost of programming and time required to complete the program change. These considerations must be weighed against the relative priorities assigned by the Area Agents and farmers.

Once a program is operating satisfactorily, there is a reluctance to disturb the present logic of the program. It is probable that errors could be introduced by the modification of an existing program. Thus, efficiency is gained by making all changes to a program or section of the program at the time of modifications. The decision to initiate program modifications hinges on the net effect of all these factors. While few changes result in total benefit to every farmer, it is important that a majority of the people are convinced of the value of the modifications.

Specific Objectives of This Study

Chapter II combines all program changes designed to improve credit acquisition and financial analysis. As the adoption of technology and the size of farms increase, the need for capital also increases. These increases may also require a shift from owner-equity financing to borrowed capital. This increased need for credit suggests a need for better financial records to establish this credit.

The Check Reconciliation Program is a new program that was used on a ten-farm pilot basis in 1972. In 1973 all farms will receive this

report. The reorganization of Section 12, Inventory Analysis, is also discussed in Chapter II.

Programming changes designed to improve tax reporting and analysis are explained in Chapter III. Logic changes allow disaggregation of cash flow totals for more detailed accounting and easier transfer to the tax return. An added program provides tax information about livestock purchased for resale; and an existing program, Capital Asset Depreciation, provides three alternative depreciation methods, straight line, declining balance, and sum-of-years digits, for each asset. This program also provides total depreciation for each asset, each type of machine, and totals for individual subfarms, landlords, and the whole farm.

Chapter IV explains modifications in the year-end analysis, the most important program in the Costfinder system. Almost all information that has been reported during the year is used in this program. Knowledge of these data sources and their accuracy is a prerequisite to the effective use of the results of the analysis program. The objectives of the changes in this are as follows: (1) reduce duplication of results, (2) improve readability of the output by reducing the amount of information on each page, and (3) reorganize the output so that whole farm analysis factors appear in a more logical order and the analysis factors applicable to an individual enterprise are printed on one or two consecutive pages. The print-out will be explained as it was before changes were made. It will then be compared with the new organization. Concluding the chapter is a discussion of the results of a program that compares the analyses of all Costfinder farms. Farmers can see how their operation compares with other farms in the state, other farms in

their geographical area, and farms of the same type, based on the percent of gross income received from that part of their farm.

Chapter V, Summary, will illustrate the benefit gained from these additions and deletions. Also directions for further work in this area will be given.

CHAPTER II

PROGRAM CHANGES TO FACILITATE CREDIT ACQUISITION AND FINANCIAL ANALYSIS

The program modifications explained in this chapter are intended to improve a set of financial records: (1) which can be more easily understood and interpreted by the farmer, (2) which provide adequate information to obtain external credit, (3) which are presented in a form acceptable to the financial institution upon which most farmers depend for agricultural credit.

Trends in Agricultural Credit

Many factors influence the need for credit in the agricultural sector. While the exact volume and composition of agricultural credit is not of major concern in the study, discussion of some of the general trends may be helpful.

The number of farms in Oklahoma has decreased by 16,000 between 1960 and 1973.[1] The reasons for this decline are many and complex. Specialization and improved technology have caused some farmers to expand the size of their farms. The farmer who could not meet the increasing capital requirements has sold to his expanding neighbor.

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[1] "Number of Farms," Oklahoma Crop and Livestock Reporting Service, (January 23, 1973).

This alone would tend to increase the size of farm units and decrease the number of farms.

Farm size measured by the amount of capital required is also increasing. Emanuel Melichar, senior economist, Board of Governors of the Federal Reserve System, has predicted that the annual capital flow into agriculture will reach $16.7 billion by 1980, an increase of 54% over the last decade.[2] This capital must be financed from reinvestment of earnings or from borrowed capital. During the 1950's, farmers allocated about 36% of the farm cash flow to meet capital requirements. In the 1960's, however, farmers allocated only 31% of their farm cash flow to debt retirement. At the same time, annual capital needs have steadily increased. Melichar predicts a slowing of this rate of increase in debt in the 1970's to seven percent compared to the nine percent of the 1960's.[3]

Money market lenders are able to provide agriculture with a very elastic supply of credit because agricultural credit represents a small amount of the funds flowing through money markets. At times, credit may be very expensive but the funds are available if the market price is paid.[4]

Check Reconciliation Program

The best possible farm management talent and financial records will be needed to profitably use agricultural credit. Any sophisticated

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[2]Emanuel Melichar, "Aggregate Farm Capital and Credit Flow Since 1950 and Projections to 1980," Agricultural Finance Review, (July 1972) XXXIII.

[3]Ibid.

[4]Ibid.

financial analysis must begin with the recording of income and expense transactions on a check by check basis.

The Check Reconciliation Program was written in 1971 and used on a test basis by ten farmers in 1972.[5] In 1973 all cooperators receive this output each time their periodic data is processed, monthly or quarterly. Table I is a sample of this output. The individual cash transactions are sorted according to bank account, a one-character alpha-numeric variable, which allows the farmer to maintain a farm account and a household account, or any number of each. The check numbers are sorted in ascending order, and if more than one transaction has the same check number, zero for example, they appear in ascending order by date. By arranging the transactions in this order, the balance column at the right gives the net bank balance after each transaction. The farmer can compare this to his bank statement to check accuracy and also can readily see any missing checks or data that have not been reported.

A new bank balance is entered with each group of data. When the new balance is encountered the previous balance is discarded, then the following transactions are added or subtracted from the new balance. Additional modifications are designed to store the ending bank balance on disk and read this value as a beginning balance the next time the farm is processed. As a result, the farmer would be required to enter the bank balance only when a change is needed.

The last section of this program lists external accounts payed and received according to external number. The farmer can assign

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[5]Check reconciliation program developed and programmed by Mike Hardin, Research Assistant, Oklahoma State University.

TABLE I

SECTION 80, CHECK RECONCILIATION PROGRAM

COMPUTERIZED-DATA-SYSTEM-FARM-INCOME-AND-DETAILED-ENTERPRISE-RECORD-SYSTEM

SECTION 80 CHECK REGISTER FARM NUMBER 007200 DATE PROCESSED 03/20/73 PAGE 1

MO	DAY	AC	TI	EXT	DESCRIPTION	BANK	CHECK	NO.CKS.MISNG	DEPOSITS	WITHDRAWALS	BALANCE
1	10		22		MILK CHECK	F	0180				2,500.49
8	1		46		HERT HAY	F	0185	84		300.00	2,200.49
8	30		05		PERS & LIVING EXP	F	0197	11		500.00	1,700.49
9	11		22		MILK CHECK	F	0201	3	2,604.59		4,305.08
9	15		37		FED TX GAS CRED	F	0201		68.00		4,373.08
9	15		45		SEED SORGHUM HAY	F	0201			143.00	4,230.08
9	17		46		LIME	F	0202			327.00	3,903.08
9	30		56		ELECTR JULY-SEPT	F	0209	6		106.09	3,796.99
9	30		56		PHONE JULY-SEPT	F	0210			67.09	3,729.90
10	1		42		RPR PICKUP	F	0211			95.65	3,634.25
10	3		41		WAGE MISC	F	0212			77.00	3,557.25
10	15		62		SOLD DAIRY HFRS	F	0217	4	3,450.00		7,007.25
10	19		51		VET SERVICES	F	0217			38.49	6,966.76
10	23		44		FEED 13(	F	0222	4		805.00	6,163.76
10	25		30		COM CRED LOAN PMT	F	0223		275.00		6,438.76
10	30		05		PERS & LIVING EXP	F	0223			500.00	5,938.76
11	12		22		MILK CHECK	F	0224		2,592.06		8,530.82
11	16		41		WAGE MISC	F	0224			49.50	8,481.32
11	23		48		SERV O TANKS	F	0225			78.33	8,402.99
11	28		44		FEED 13(	F	0226			1,050.00	7,352.99
11	30		05		PERS & LIVING EXP	F	0227			500.00	6,852.99
12	10		22		MILK CHECK	F	0228		2,529.35		9,382.34
12	15		44		SALT&MINERAL	F	0228			93.45	9,288.89
12	25		41		WAGE MISC	F	0230	1		31.25	9,257.64
12	29		44		FEED 13(	F	0231			1,225.00	8,032.64
12	30		41		WAGE MISC	F	0232			17.75	8,014.89
12	31		47		CHG FOR FD GRIND	F	0234	1		100.00	7,914.89
12	31	2	02	1	1971 LAND PMT	F	0235			750.00	7,164.89
12	30		05		PERS & LIVING EXP	F	0236			500.00	6,664.89
12	31		43	1	INT ON FARM LOAN	F	0237			1,396.18	5,268.71
12	31		43	12	INT ON MACH LOAN	F	0238			412.67	4,856.04
12	31		50		FINANCE RCRDS	F	0239			83.00	4,773.04
12	31		50		FARM ORGNZ DUES	F	0240			175.00	4,598.04
12	31		56		PHONE OCT-DEC	F	0242	1		63.31	4,534.73
TOTALS							34	115	14,019.49	9,484.76	4,534.73

MO	DAY	AC	TI	EXT	DESCRIPTION	BANK	CHECK	NO.CKS.MISNG	DEPOSITS	WITHDRAWALS	BALANCE
1	1	5	10		BANK BALANCE HOME	H	0700				500.00
1	30		01		NON-FARM INC	H	0701		450.00		950.00
TOTALS							2	0	450.00	.00	950.00

EXTERNAL ACCOUNT TOTALS PAGE 1

EXT-NO.	RECEIPTS	PAYMENTS	BALANCE
1	.00	2,146.18	2,146.18-
12	.00	412.67	412.67-
99	14,969.49	6,925.91	8,043.58

external numbers one through 98 to the different individual stores, companies, or individuals with which he does business. If there is a mistake, the amount can be corrected by reporting a duplicate negative transaction and another transaction with the appropriate external number. This section shows at a glance the total amount of receipts, payments, and the net balance for each external account. Careful use of the Check Reconciliation Program assures the farmer that all business transactions are reported properly. Accurate data input is the first step in the achievement of the stated objectives.

Intra-Year Financial Analysis

While most businesses prepare financial statements monthly or quarterly, the time required to prepare the inventory of assets and other accounting requirements causes most farmers to prepare financial statements on a yearly basis. Currently, Costfinder requires opening and closing inventory yearly. Thus financial statements and balance sheets are provided in the year-end analysis. Table II illustrates an intra-year financial analysis proposed in Section 3 of the periodic report program.

A traditional balance sheet format contains assets on the left or top, while liabilities are on the right side or bottom of the financial report. Inventory of current assets are arrayed according to Transaction and Item code.[6] Closing inventory would be equal to opening inventory plus amount added less amount deleted. Because these additions

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[6]Transaction and Items also referred to as TI are the first two digits of the four digit numerical code used in the Costfinder system.

TABLE II

THE TYPED REPRESENTATION OF THE INTRA-YEAR FINANCIAL ANALYSIS

SECTION 3A FARM NUMBER OK0072 BALANCE SHEET DATE PROCESSED 03/30/72 PAGE 3

ASSETS

CURRENT ASSETS

CASH $10,000.00

ACCOUNTS RECEIVABLE

EXT	CASH INCOME	OPENING INVENTORY JAN 1, 1972	CHARGED INCOME	INCOME PAYMENT	TOTAL RECEIVED	INCOME RECEIVABLE
01	150.00	10,000.00	65,000.00	18,453.00	18,603.00	56,547.00
03	40.00	4,000.00	2,000.00	1,850.00	1,850.00	4,150.00
15	.00	.00	450.00	.00	.00	450.00
TOTALS	190.00	14,000.00	67,450.00	20,303.00	20,453.00	61,147.00

TOTAL ACCOUNTS RECEIVABLE $61,147.00

PERPETUAL INVENTORY OF ASSETS

T1	DESCRIPTION	OPENING INVENTORY	ADDED	DELETED	CLOSING INVENTORY	
11	RAISED LIVESTOCK	2,000.00	456.00		2,456.00	
17	CROPS	10,500.00	8,000.00		18,500.00	
18	FORAGE	4,000.00		2,000.00	2,000.00	
44	FEED	3,500.00		1,500.00	2,000.00	
48	SUPPLIES	1,200.00		455.00	745.00	
71	LIVESTOCK FOR RESALE	17,500.00	10,500.00		28,000.00	
TOTAL CURRENT INVENTORY ASSETS		38,700.00	18,956.00	3,955.00	53,701.00	$53,701.00
				TOTAL CURRENT ASSETS		$124,848.00
91	LIVESTOCK	18,000.00	3,700.00		21,700.00	
97	MACHINERY	75,000.00	4,500.00		79,500.00	
98	BUILDINGS	48,000.00			48,000.00	
99	LAND	110,000.00			110,000.00	
TOTAL FIXED INVENTORY ASSETS		251,000.00	8,200.00		259,200.00	$259,200.00
				TOTAL ASSETS		$384,048.00

LIABILITIES

ACCOUNTS PAYABLE

EXT	CASH PAID	OPENING INVENTORY JAN. 1, 1972	CHARGED EXPENSE	PAYMENTS ON ACCOUNT	TOTAL PAID	TOTAL PAYABLE
05	380.00	15,000.00	15,600.00	16,200.00	16,580.00	13,420.00
06	.00	2,000.00	2,800.00	.00	.00	4,800.00
TOTALS	380.00	17,000.00	18,400.00	16,200.00	16,580.00	18,220.00

TOTAL LIABILITIES $18,220.00

TOTAL NET WORTH $365,828.00

TOTAL LIABILITIES & NET WORTH $384,046.00

TABLE II (Continued)

SECTION 3B | FARM NUMBER OK999900 | INCOME STATEMENT | DATE PROCESSED 03/30/72 | PAGE 4

GROSS SALES	$150,000.00
TOTAL FARM EXPENSES	$ 98,500.00
OTHER EXPENSES	
DEPRECIATION	$ 12,422.00
NET INVENTORY CHANGE	$ 4,245.00
RETURNS TO LABOR, EQUITY CAPITAL, MANAGEMENT, AND RISK	$240,323.00

are included in Section 3A, which is processed monthly or quarterly, closing inventory would not be available until it is reported by the farmer at the end of his fiscal year.

It is recognized that a perpetual inventory cannot be correctly calculated from day to day income and expense transactions. For example, feed inventory is credited when feed is purchased but no entries are required when the feed is fed to livestock. As a result feed inventory is only an estimate. Likewise, additions are made to livestock inventory when cattle are purchased. Until these animals are sold or a current market value is established by reporting the livestock inventory, the amount in Table II does not reflect the gain or loss in value of these cattle as they grow.

The inventory value of most fixed assets varies little during the year. When taking inventory of these assets, it is easy to use opening inventory as a basis. This procedure requires consideration by the farmer only one time each year. As a result, some of the major problems encountered in the year-end financial statement are caused by failure to report purchases and sales of capital assets, such as land.

All liabilities are included in the accounts payable section which compares column for column with the accounts receivable part of the asset section. Section 3B, Table II, shows a simplified income statement. Gross farm sales plus net inventory changes are reduced by the amount of total expenses and a depreciation allowance based on the portion of the year completed.

Inventory and Financial Analysis

The previous discussion outlines a complete financial statement on a periodic basis without closing inventories supplied by the farmer. Granted, some current assets and depreciation are at best estimates. "Is an estimated statement that helps farmers to be aware of inventory changes periodically better than no periodic statement?" This question was posed to the Area Agents and Farm Management State Staff. It was felt that reorganization of the existing financial statement was necessary but not on a periodic basis. As a result, many of the ideas and programming procedures that would have been used in Section 3A and B will be utilized in Section 12 of the year-end analysis, Table III.

While the title indicates the listing of inventories only, all information that is needed to prepare a financial statement appears in this section. However, the financial information in this section was not presented in the order that rural bankers and other credit officers are accustomed to analyzing. Bankers, loan officers, and credit representatives have indicated difficulty in interpreting this section.

It has also been suggested that the inventory of the different types of raised livestock, feed, supplies, cash crops, and small grains, be printed individually rather than aggregated in one line. Furthermore, the programming logic required to print one inventory item per line is simpler than that required to aggregate the individual items. If no landlord or other operator data were reported, the middle column would be blank and the total farm column would simply repeat the information in the operator area. The previous examples represent some of the suggestions received relating to Section 12, the Inventory Analysis.

TABLE III

THE 1966-72 VERSION OF SECTION 12 INVENTORY ANALYSIS

SECTION 12 INVENTORY ANALYSIS — FARM NUMBER [illegible] — DATE PROCESSED 03/20/73 — PAGE 8

	SUBFARM 00	ALL OTHER SUBFARMS	TOTAL FARM
OPEN INV OF CASH AND MISC ASSETS	$1,141.06	$.00	$1,141.06
OPEN INV OF RAISED LIVESTOCK	$7,094.50	$.00	$7,094.50
OPEN INV OF GRAIN	$1,830.00	$.00	$1,830.00
OPEN INV OF FORAGE	$750.00	$.00	$750.00
OPEN INV OF CASH CROPS	$.00	$.00	$.00
OPEN INV OF PRODUCTS, FEED, SUPPL	$800.00	$.00	$800.00
OPEN INV OF LIVESTOCK FOR RESALE	$.00	$.00	$.00
OPEN INV OF CROPS FOR RESALE	$.00	$.00	$.00
OPEN INV OF MISC CAPITAL INVEST	$710.00	$.00	$710.00
OPEN INV OF CAP ASSETS-LIVESTOCK	$9,355.00	$.00	$9,355.00
OPEN INV OF CAP ASSETS-MACHINERY	$3,217.00	$.00	$3,217.00
OPEN INV OF CAP ASSETS-BUILDINGS	$3,044.00	$.00	$3,044.00
OPEN INV OF CAP ASSETS-LAND	$61,000.00	$8,000.00	$69,000.00
TOTAL OPENING INVENTORY	$88,941.56	$8,000.00	$96,941.56
PLUS OPEN CURRENT ACCTS RECEIV	$4,451.37	$.00	$4,451.37
AND OPEN CAPITAL ACCTS REC	$.00	$.00	$.00
LESS OPEN CURRENT ACCTS PAYABLE	$20,629.76	$.00	$26,629.76
AND OPEN CAPITAL LIABILITIES	$17,850.00	$.00	$17,850.00
YIELDS TOTAL OPENING NET WORTH	$48,913.17	$8,000.00	$56,913.17
CLOSE INV OF CASH AND MISC ASSETS	$561.80	$.00	$561.80
CLOSE INV OF RAISED LIVESTOCK	$8,815.60	$.00	$8,815.60
CLOSE INV OF GRAIN	$2,030.00	$.00	$2,030.00
CLOSE INV OF FORAGE	$818.00	$.00	$818.00
CLOSE INV OF CASH CROPS	$.00	$.00	$.00
CLOSE INV OF PRODUCTS, FEED, SUPP	$.00	$.00	$.00
CLOSE INV OF LIVESTOCK FOR RESALE	$.00	$.00	$.00
CLOSE INV OF CROPS FOR RESALE	$.00	$.00	$.00
CLOSE INV OF MISC CAPITAL INVEST	$710.00	$.00	$710.00
CLOSE INV OF CAP ASSETS-LIVESTOCK	$9,355.00	$.00	$9,355.00
CLOSE INV OF CAP ASSETS-MACHINERY	$3,372.00	$.00	$3,372.00
CLOSE INV OF CAP ASSETS-BUILDINGS	$2,755.00	$.00	$2,755.00
CLOSE INV OF CAP ASSETS-LAND	$63,500.00	$8,000.00	$71,500.00
TOTAL CLOSING INVENTORY	$91,917.40	$8,000.00	$99,917.40
PLUS CLOSE CURRENT ACCTS RECEIV	$4,737.38	$.00	$4,737.38
AND CLOSE CAPITAL ACCTS REC	$.00	$.00	$.00
LESS CLOSE CURRENT ACCTS PAY	$28,807.24	$.00	$28,807.24
AND CLOSE CAPITAL LIABILITIES	$16,800.00	$.00	$16,800.00
YIELDS TOTAL CLOSING NET WORTH	$51,047.54	$8,000.00	$59,047.54
TOTAL INVENTORY CHANGE	$2,975.84	$.00	$2,975.84
TOTAL CHANGE IN NET WORTH	$2,134.37	$.00	$2,134.37
OPENING CURRENT LOANS	$25,581.45	$.00	$25,581.45
OPENING NONCURRENT LOANS	$17,850.00	$.00	$17,850.00
CLOSING CURRENT LOANS	$27,841.33	$.00	$27,841.33
CLOSING NONCURRENT LOANS	$16,800.00	$.00	$16,800.00
OPENING CURRENT LOAN RATIO	.63		.63
CLOSING CURRENT LOAN RATIO	.61		.61
OPENING DEBT TO WORTH RATIO	.91		.78
CLOSING DEBT TO WORTH RATIO	.89		.77
DEBT SERVICING TO GROSS FARM INC	.99		.98

SECTION 12 PART B INCOME PRODUCED — FARM NUMBER OK0073 — DATE PROCESSED 03/20/73 — PAGE 9

	SUBFARM 00	ALL OTHER SUBFARMS	TOTAL FARM
TOTAL FARM CASH EARNINGS PLUS	$974.38	$330.64	$1305.02
NONCASH INVENTORY CHANGE	$3,555.10	$.00	$3,555.10
INTEREST PAID EQUALS	$3,461.54	$.00	$3,461.54
RETURN TO UNPAID LABOR, CAP, MGMT	$7,991.02	$330.64	$8,321.66
LESS UNPAID FAMILY LABOR	$.00	$.00	$.00
YIELDS RETURN TO CAP AND MGMT	$7,991.02	$330.64	$8,321.66
DIVIDED BY AVERAGE CAPITAL	$102,720.41	$7,933.87	$110,654.29
YIELDS PERCENT RATE OF RETURN	7.77	4.16	7.52
RETURN TO UNPAID LABOR, CAP, MGMT	$7,991.02	$330.64	$8,321.66
LESS 6 PERCENT INTEREST CHARGE	$6,163.22	$476.03	$6,639.25
YIELDS RETURN TO LABOR AND MGMT	$1,827.80	$145.39-	$1,682.41
DIVIDED BY UNPAID LABOR YEARS	.80		.80
YIELDS RETURN PER LABOR YEAR	$2,284.75	$.00	$2,103.01

Table IV illustrates the changes made in response to these suggestions. The inventory items are printed in ascending order TRANSACTION AND ITEM one through 99.[7] In this way, raised beef cattle are separated from raised dairy cattle, sheep, or swine. In the 1966-72 version of Section 12, Table III, totals are listed for the main Sub-farm, all landlords, and the total farms. After the modifications are completed the opening and closing inventories appear on the same line with the amount of net change replacing the total farm column. This logic change makes the comparison of opening and closing inventory much easier. While this restructure provides more information per page, the illustration contains only operator data. If landlord data is reported, the same output section will be repeated for all landlords and total farm data, the sum of all operators and landlords. If no other subfarm data is reported, the program will not print that section. A message will be printed indicating that no other landlord or operator data has been reported, and values given for all operators are also total farm values.

Capital and current accounts payable are subtracted and receivables are added to total inventory to obtain the opening and closing change in net worth. The lines of output saved by printing opening and closing values on one line approximately offset the increase caused by printing inventory items separately. Because operator, landlord, and total farm values must be printed separately, one after the other, the amount of

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[7] TRANSACTION AND ITEM are the first two digits of the four-digit Costfinder code. TRANSACTION codes include Non-Farm and Special Tax Cases, Raised Sales, Raised Product Sales, Farm Income, Current Farm Expenses, Purchases and Sales of Items Purchased for Resale, and Purchases and Sales of Capital Assets. These two digits will be referred to as TI or TI code.

TABLE IV

THE 1973 VERSION OF SECTION 12 FINANCIAL ANALYSIS

SECTION 12 FINANCIAL ANALYSIS — FARM NUMBER OK0072 SUBFARM 00 — DATE PROCESSED 03/20/73 — PAGE 8

		OPENING INVENTORY			CLOSING INVENTORY			NET CHANGE		
TI	DESCRIPTION	UNITS	POUNDS	DOLLARS	UNITS	POUNDS	DOLLARS	UNITS	POUNDS	DOLLARS
10	CASH			1141.06			561.80			-579.26
11	BEEF	45.0	19125.0	6844.50	43.0	17460.0	8565.60	-2.0	-1665.0	1721.10
15	OTHER LIVESTOCK	1.0	1000.0	250.00	1.0	1000.0	250.00	0.0	0.0	0.0
17	GRAIN	183.0		1830.00	203.0		2030.00	20.0		200.00
18	HAY	25.0		750.00	343.0	19080.0	818.00	318.0	19080.0	68.00
44	FEED	800.0	48000.0	800.00	0.0	0.0	0.00	-800.0	-48000.0	-800.00
90	MISC ASSETS	7.1		710.00	7.1		710.00	0.0	0.0	0.00
91	CAPITAL BEEF	50.0	43900.0	8355.00	55.0	47100.0	9355.00	5.0	3200.0	1000.00
95	CAP OTHER THAN LVST	2.0	2200.0	1000.00	0.0	0.0	0.00	-2.0	-2200.0	-1000.00
97	CAPITAL MACH	5.0		3217.00	5.0		3372.00	0.0	0.0	155.00
98	BUILDINGS	40.0		3044.00	40.0		2755.00	0.0	0.0	289.00
99	LAND	550.0		69000.00	550.0		71500.00	0.0	0.0	2500.00
	TOTAL			$96941.56			$99917.40			$2975.84
	CURRENT ACCOUNTS RECEIVABLE			4451.37			4737.38			286.01
	CAPITAL ACCOUNTS RECEIVABLE			0.00			0.00			0.00
	CURRENT ACCOUNTS PAYABLE			26629.76			28807.24			2177.48
	CAPITAL ACCOUNTS PAYABLE			17850.00			16800.00			-1050.00
	TOTAL NET WORTH			56913.17			59047.54			2134.37
	CURRENT LOANS			25581.45			27841.33			2259.88
	NONCURRENT LOANS			17850.00			16800.00			-1050.00
	PERCENT CURRENT EQUITY			0.00			0.00			0.00
	PERCENT OWNER EQUITY			.58			.59			.01
	DEBT SERV TO GROSS FARM INCOME			.99			0.00			0.00

SECTION 12 PART B INCOME PRODUCED — FARM NUMBER OK0072 — DATE PROCESSED 03/16/73 — PAGE 9

	SUBFARM 00	ALL OTHER SUBFARMS	TOTAL FARM
TOTAL FARM CASH EARNINGS PLUS	$974.38	$330.64	$1305.02
NONCASH INVENTORY CHANGE	$3555.10	$.00	$3555.10
INTEREST PAID EQUALS	$3461.54	$.00	$3461.54
RETURN TO UNPAID LABOR, CAP, MGMT	$7991.02	$330.64	$8321.66
LESS UNPAID FAMILY LABOR	$.00	$.00	$.00
YIELDS RETURN TO CAP AND MGMT	$7991.02	$330.64	$8321.66
DIVIDED BY AVERAGE CAPITAL	$102720.41	$7933.87	$110654.29
PERCENT RETURN ON TOTAL CAPITAL	7.77	4.13	7.52
PERCENT RETURN ON EQUITY CAPITAL	8.85		8.53
RETURN TO UNPAID LABOR, CAP, MGMT	$7991.02	$330.64	$8321.66
LESS 6 PERCENT INTEREST CHARGE	$6163.22	$476.03	$6639.25
YIELDS RETURN TO LABOR AND MGMT	$1827.80	$145.39-	$1682.41
DIVIDED BY UNPAID LABOR YEARS	.80		.80
YIELDS RETURN PER LABOR YEAR	$2284.75	$.00	$2103.01

output may increase. However, additional information is provided in a more readable form.

Section 12B, Table IV will retain the same format and will appear after the total farm values have been printed. However, in Section 12B, the output can be presented in a more readable, condensed form by omitting units and pounds. Changes in Section 12B include the addition of a "percent return to owner equity" figure and the change of PERCENT RATE OF RETURN to PERCENT RETURN TO TOTAL EQUITY. These modifications allow comparison of the rate of return on owner capital with the percent return on non-owner capital. It is hoped that the improved readability and quality of existing and additional information will increase the farmer's knowledge and understanding of financial analysis. Good financial records organized in condensed, logical form, should help the farmer obtain needed credit.

Cash Flow Budget Summary

The timing of credit needs is an important part of financial analysis. It would be wasteful to finance a short term need with a long term source of funds. Section 30, Table V is prepared at the end of the year to show the time distribution of cash needs for operation of the farm and for family living.[8] Data in this report includes cash transactions, charges made during the year and loans, and principal paid within the year. Payments made on accounts created in previous years

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[8]Cash Budget was initiated by Ted R. Nelson, Extension Economist, Farm Management. Modifications have been completed by Mike L. Hardin, Research Assistant.

TABLE V

SECTION 30, CASH BUDGETING REPORT

COMPUTERIZED-OKLA-ST-FARM-INCOME-AND-DETAILED-ENTERPRISE-RECORD-SYSTEM

SECTION 30 CASH BUDGETING REPORT FARM NUMBER 007200 DATA ROUNDED TO DOLLARS DATE PROCESSED 03/20/73 PAGE 1

TI	DESCRIPTION	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL
ACTUAL BORROWING AND REPAYMENT														
06	PRINCIPAL PAID OUT							1000		570			750	2320
SOURCES OF INCOME														
C1	TAXABLE INCOME	450												450
11	BEEF			1658										1658
18	FORAGE							813						813
22	DAIRY PRODUCTS	2500	2915	2770	2894	2705	2734	2656	2644	2605	2605	2592	2529	32236
30	MISCELLANEOUS INCOME										275			275
35	PATRONAGE-REFUNDS								150	100				250
36	AGRI. PROGRAM PAYMENTS							22	160					182
37	TAX REFUNDS									68				68
3E	INSURANCE PROCEEDS						314							314
02	DAIRY										3450			3450
82	DAIRY				164						290		208	572
EE	MOTOR VEHICLES	700												700
87	MACHINERY - EQUIPMENT		70											70
	TOTAL INCOME	3650	2985	4434	3057	2704	3048	3491	2954	2772	6529	2592	2737	41938
TYPES OF EXPENSE														
05	PERSONAL DRAW	450	500	475	500	450	500	1654	1134	500	500	500	500	7667
41	LABOR	23	75	107	23	35	520	460	660	70	149	53	49	2219
42	REPAIRS				343	303	374	340		85	114			1618
43	INTEREST				5		48						1809	1862
44	FEED			203	280	249	495	435	359	2204	956	1050	1719	7992
45	SEEDS AND PLANTS									143				143
46	FERTILIZER-LIME-CHEM				222				300	327	986			1835
47	MACHINE HIRE												100	100
48	SUPPLIES			343	176		25	145	22	213		78		1002
49	BREEDING FEES				339									339
50	MISCELLANEOUS EXPENSE							92	52		90		258	492
51	VETERINARY-MEDICINE			172		121	55	174			38			560
52	GAS-FUEL-OIL					93	189	220	183	169	172			1025
54	TAXES				767	82	120				106			1335
55	INSURANCE	207	195		149	151								653
56	UTILITIES(ELEC,PHONE)			197			150			173			205	725
57	FARM RENT									87				87
58	FREIGHT-TRUCKING		38		90		233	605	102					1028
85	CONSERVATION EXPENSE						525	265						790
72	DAIRY				2000									2000
92	DAIRY	500	500				800			500				2300
9E	MOTOR VEHICLES			5803	4841									10621
	TOTAL EXPENSE	1180	1308	7298	9635	1521	4034	4389	2656	4470	3111	1677	4639	46992
	BORROWING NECESSARY			2862	6547		986	898		1698			1902	14874
	REPAYMENT POSSIBLE	2470	1676			1242			98		3418	914		9820
	CUMULATIVE BORROWING				5204	4021	4987	5885	5786	7484	4065	3150	5052	5052
	CUMULATIVE SAVINGS	2470	4146	1283										

would have been shown on a previous year's cash budget. Thus, they would not be added this year.

The amounts are listed monthly with a total in the far right column. The final summary total represents non-loan income and non-loan expense for each month and the year. BORROWING NECESSARY represents the amount expenses exceed income for the month. Conversely, REPAYMENT POSSIBLE is the amount income exceeds expenses. The last two lines show CUMULATIVE BORROWING AND SAVINGS respectively. The time distribution of credit needs varies widely, depending on the type of livestock and crops produced. It is important that the length of time that credit is needed be comparable to the time that credit is used.

The Check Reconciliation Program provides a means of checking the accuracy of the bank statement and all input data. Modifications in Section 12, Table IV, provide financial information in a form that is more easily understood and interpreted by farmers and credit officers. Timing of credit needs is provided in the Cash Budget report. Trends in agricultural credit indicate the increasing importance of timely and accurate financial information.

CHAPTER III

PROGRAM CHANGES TO FACILITATE TAX REPORTING AND ANALYSIS

Introduction

Good tax management depends upon timely and accurate records. One objective of these records is to furnish sufficient information to file income tax returns. Programming modifications explained in this chapter are intended to: (1) improve understanding and readability of the printouts generated, (2) provide adequate information to report income tax, and (3) generate timely records which provide the basis for estimating taxable income at any time during the year.

Program Modifications to Section 2, Cash Flow Summary

Suggestions received from the Area Agents to improve the Section 2, Cash Flow Summary, are indicated in Table VI. The modifications proposed in this section are based on the 1966-72 version of Section 2.[1] The farm number, date processed, and accounting basis are included in the heading. Totals are printed for each TI code that has a non-zero

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[1]The Section 2, Cash Flow Summary, 1966-72 version is printed in Table VII.

TABLE VI

THE TYPED REPRESENTATION OF SECTION 2, CASH FLOW SUMMARY

SECTION 2 CASH FLOW SUMMARY FARM NUMBER OX0072 CASH BASIS DATE PROCESSED 03/30/72 PAGE 2

TIG	DESCRIPTION	TOTALS FOR THIS PERIOD UNITS	POUNDS	DOLLARS	CURRENT TOTALS TO DATE UNITS	POUNDS	DOLLARS	LAST YEAR AT THIS TIME UNITS	POUNDS	DOLLARS
NONFARM AND SPECIAL CASES										
010	TAXABLE NON-FARM INC									
1	WAGES			55.00			111.58			114.22
2	RENTAL			48.55			4344.62			11322.43
4	DEPLETION ELIGIBLE			13.44			141.65			110.32
6	RESALE ITEMS			98.98			789.42			642.11
8	CAPITAL			941.64			1453.67			1445.66
9	NON-TAXABLE GIFTS			4.32			14.56			18.43
030	FAMILY OR NONFARM DEDUCTIBLE EXPENSES									
1	WAGES			82.76			114.84			127.65
2	REPAIRS			2421.54			2346.12			922.45
7	MACHINE HIRE			497.45			867.44			1432.21
	TOTAL EXPENSES NONFARM			$3001.75			$3328.40			$2482.31
CURRENT FARM EXPENSES										
420	REPAIRS									
1	CAR			123.62			123.62			42.11
3	TRACTOR			433.45			644.21			114.21
7	MACHINERY			898.77			898.77			1343.57
440	FEED									
1	ADDITIVES			334.56			646.22			1253.89
4	MIXED FEEDS			4453.67			8769.22			4356.11
	TOTAL CURRENT FARM EXPENSES			$6244.05			$11082.04			$7109.89

TABLE VII

THE 1966-72 VERSION OF SECTION 2, CASH FLOW SUMMARY

SECTION 2 CASH FLOWS SUMMARY FARM NUMBER OK007200 CASH BASIS DATE PROCESSED 03/25/73 PAGE 3

TI	DESCRIPTION	TOTALS FOR THIS PERIOD UNITS	POUNDS	DOLLARS	OLD BALANCE BROUGHT FORWARD UNITS	POUNDS	DOLLARS	CURRENT TOTALS TO DATE UNITS	POUNDS	DOLLARS
NONFARM AND SPECIAL CASES										
1	TAXABLE NON-FARM INC						450.00			450.00
	TOTAL INCOME, NON-FARM			$0.00			$450.00			$450.00
5	PERSONAL DRAW			4,792.00			2,875.00			7,667.00
6	PRINCIPAL PAID OUT			1,750.00						1,750.00
	TOTAL EXPENSES, NON-FARM			$6,542.00			$2,875.00			$9,417.00
CURRENT FARM SALES										
11	BEEF				33.0		1,658.00	33.0		1,658.00
18	FORAGE	32.5	65,000	813.00				32.5	65,000	813.00
22	DAIRY PRODUCTS		243,440	15,631.43		258,638	16,604.57		502,118	32,236.00
30	MISCELLANEOUS INCOME			275.00						275.00
35	PATRONAGE REFUNDS			250.00						250.00
36	AGRI. PROGRAM PAYMENTS			102.00						102.00
37	TAX REFUNDS			66.00						66.00
38	INSURANCE PROCEEDS						314.00			314.00
	TOTAL CURRENT FARM SALES			$17,219.43			$18,576.57			$35,796.00
CURRENT FARM EXPENSES										
41	LABOR	301.0		1,437.50	201.0		781.50	502.0		2,219.00
42	REPAIRS			338.57			1,079.43			1,418.00
43	INTEREST			1,836.85			53.15			1,882.00
44	FEED		141,600	6,363.29		109,900	1,727.71		251,500	8,091.00
45	SEEDS AND PLANTS			143.30						143.00
46	FERTILIZER-LIME-CHEM	6.5	12,000	927.00			222.00	6.0	12,000	1,149.00
47	MACHINE HIRE			100.00						100.00
48	SUPPLIES			458.10			543.90			1,002.00
49	BREEDING FEES						339.00			339.00
50	ADMINISTRATIVE EXP			492.00						492.00
51	VETERINARY-MEDICINE			212.28			347.72			560.00
52	GAS-FUEL-OIL	342.0		743.16	596.0		281.84	4C22.6		1,025.00
54	TAXES			105.68			929.32			1,035.00
55	INSURANCE						653.00			653.00
56	UTILITIES(ELEC,PHONE)			377.92			347.08			725.00
57	FARM RENT PAID			87.00						87.00
58	FREIGHT-TRUCKING			707.37			320.63			1,028.00
59	CONSERVATION EXPENSE			265.00			525.00			790.00
	TOTAL CURRENT FARM EXPENSES			$14,766.72			$8,151.28			$22,918.00
SALE OF PURCHASES FOR RESALE										
62	DAIRY	10.0		3,450.00				10.0		3,450.00
	TOTAL SALE OF PURCHASES FOR RESALE			$3,450.00			$0.00			$3,450.00
PURCHASE OF PURCH FOR RESALE										
72	DAIRY				10.0	5,000	2,000.00	10.0	5,000	2,000.00
	TOTAL PURCHASE OF PURCH FOR RESALE			$0.00			$2,000.00			$2,000.00

SECTION 2 CASH FLOWS SUMMARY (CONT) FARM NUMBER OK007200 CASH BASIS DATE PROCESSED 03/25/73 PAGE 4

TI	DESCRIPTION	TOTALS FOR THIS PERIOD UNITS	POUNDS	DOLLARS	OLD BALANCE BROUGHT FORWARD UNITS	POUNDS	DOLLARS	CURRENT TOTALS TO DATE UNITS	POUNDS	DOLLARS
PURCHASE OF CAPITAL ASSETS										
98	BUILDINGS - IMPROVEM			570.00						570.00
	TOTAL PURCHASE OF CAPITAL ASSETS			$570.00			$0.00			$570.00
	TOTAL FARM INCOME			$20,669.43			$18,576.57			$39,246.00
	TOTAL FARM EXPENSE			$15,336.72			$10,151.28			$25,488.00
	TOTAL FARM GAIN OR LOSS			$5,332.71			$8,425.29			$13,758.00
	TOTAL NONFARM GAIN OR LOSS			$6,542.00-			$2,425.00-			$8,967.00-
	TOTAL GAIN OR LOSS			$1,209.29-			$6,000.29			$4,791.00

observation. Three sets of units, pounds, and dollars are listed across the page. These three sets represent TOTALS FOR THIS PERIOD, OLD BALANCE BROUGHT FORWARD, and CURRENT TOTALS TO DATE.

Area Agents agreed that the OLD BALANCE FORWARD column should be replaced by the totals for LAST YEAR AT THIS TIME. The old balance is read each time the periodic report is processed. It would be very simple to omit these figures in the printout; however, the LAST YEAR AT THIS TIME figures must be read from the previous year's master transaction file. If input data were reported promptly each month or quarter, it would be easy to determine the number of months of data reported this year. Then, a comparable number of months of data could be totaled and printed from the previous year's data. In reality, data is not reported in neat monthly or quarterly blocks. Often, four or five months of data are reported together.

The master transaction file for 145 farms in 1972 contained approximately 125,000 ninety-character records. To read and total the appropriate records each week the periodic report is processed could double the cost. If a program were written to read the master transaction file for the previous year and print totals for each month, the condensed results could be written on another file. This smaller file could be read into the periodic report program. While the programming changes required to print totals for LAST YEAR AT THIS TIME is possible, the cost of this section would increase. Because of the increased cost, the program modifications will not be included in the Cash Flow Summary. The units and pounds in the OLD BALANCE FORWARD have been deleted but the dollar amounts in this column will be printed after the TI code description. Without further program modifications,

the balance forward dollar amounts provide the only means of manually checking the accuracy of the old balance forward files. Program modifications would provide many other ways of making this accuracy check. The cost involved in the modification and the cost of replacing old balance forward with the totals from the previous year effect the retention of old balance dollars. By deleting both the totals from the previous year and the old balance units and pounds, the readability of the Cash Flow Summary, Table VIII, is improved.

Expansion of Cash Flow Categories

Another suggestion received from the Area Agents and farmers indicates that it would be helpful if some of the TI categories such as grain sales, repairs, feed, and supplies could be listed by GENERAL code.[2] Since there are ninety-nine TI's and nine possible GENERAL sub-categories in each TI code, disaggregation of all TI's would increase the possible number of lines printed from 99 to 999.

This expansion would also require that the computer storage for the Cash Flow Section be increased tenfold. Computer costs at Oklahoma State University are a function of actual processing time and the amount of storage required. Expansion of all GENERAL codes would increase the amount of time required to print the extra lines and increase the computer storage required for this section. Since some TI codes are used more than others, a compromise between cost and

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[2]GENERAL is the third digit of the four-digit Costfinder code. It provides nine possible sub-divisions of each TI code. Hereafter it will be referred to as G, GENERAL, or GENERAL CODE.

TABLE VIII

THE 1973 VERSION OF SECTION 2, CASH FLOW SUMMARY

SECTION 2 - DETAIL CASH FLOW SUMMARY - CASH TAXPAYER

TI	DESCRIPTION	PREVIOUS BALANCE DOLLARS	TOTALS FOR THIS PERIOD UNITS	POUNDS	DOLLARS	CURRENT TOTALS TO DATE UNITS	POUNDS	DOLLARS
			*** FAMILY LIVING AND OUTSIDE BUSINESS ***					
05	FAMILY LIVING				$4,792.00			$4,792.00
	4 PERS. SERV.-REC				1,792.00			1,792.00
	10 OTHER				3,000.00			3,000.00
	** TOTAL NON-FARM OUTFLOW **				$4,792.00			$4,792.00
	** TOTAL NET NON-FARM INFLOW **				$4,792.00-			$4,792.00-
			*** RAISED LIVESTOCK AND GRAIN SALES ***					
11	BEEF, RAISED	$1,658.00				33.00		$1,658.00
	1 FEEDERS	1,658.00				33.00		1,658.00
18	HAY AND FORAGE		32.50	65,000.0	$813.00	32.50	65,000.0	$813.00
	1 ALFALFA		32.50	65,000.0	813.00	32.50	65,000.0	813.00
	TOTAL RAISED SALES	$1,658.00			$813.00			$2,471.00
			*** PRODUCT INCOME AND OTHER INCOME ***					
22	DAIRY PROD-MILK	$16,604.57		243,480.3	$15,631.43		502,118.3	$32,236.00
30					$275.00			$275.00
35	PATRON. REFUNDS				$250.00			$250.00
	1 MILK CO-OPS				150.00			150.00
	5				100.00			100.00
36	GOVT PAYMENTS				$182.00			$182.00
	2 MARKET CERTIFICAT				22.00			22.00
	5 A.C.P. PRACTICES				160.00			160.00
37	GAS TAX REFUND				$68.00			$68.00
	1 FEDERAL GASOLINE				68.00			68.00
38	INS PROCEEDS	$314.00						$314.00
	TOTAL PRODUCT SALES & INCOME	$16,918.57			$16,406.43			$33,325.00
			*** SALE OF LVST-GRAIN RESALE ITEMS ***					
62	DAIRY, RESALE		10.00		$3,450.00	10.00		$3,450.00
	TOTAL SALE OF RESALE ITEMS				$3,450.00			$3,450.00
	** TOTAL FARM INFLOW **	$16,576.57			$20,669.43			$39,246.00
			*** CURRENT FARM EXPENSES ***					
41	LABOR HIRED	$781.50	301.00		$1,437.50	502.00		$2,219.00
42	REPAIRS	$1,079.43			$538.57			$1,618.00
	2 CROP MACHINERY	142.62			95.65			238.27
	3 LIVESTOCK EQUIP.	200.00			284.33			484.33
	4 IRRIGATION EQUIP.				55.61			55.61
	5 BUILDINGS	182.38						182.38

TABLE VIII (Continued)

SECTION 2 - DETAIL CASH FLOW SUMMARY - CASH TAXPAYER (CONT)

TI	DESCRIPTION	PREVIOUS BALANCE DOLLARS	TOTALS FOR THIS PERIOD UNITS	POUNDS	DOLLARS	CURRENT TOTALS TO DATE UNITS	POUNDS	DOLLARS
	6	212.72						212.72
	7	161.48			18.45			179.93
	8	180.23						180.23
	9				84.53			84.53
43	INTEREST	$53.15			$1,808.85			$1,862.00
44	FEED PURCHASED	$1,727.71		121,600.0	$6,363.29		217,200.0	$8,091.00
	2 PROT-MIXED FEEDS	67.67			294.10			361.77
	3 CORN	500.90		22,000.0	823.03		22,000.0	1,323.03
	4 GRAIN SORGHUM	1,160.34		99,600.0	3,501.16		195,200.0	4,661.20
	8 ALFALFA HAY				1,745.00			1,745.00
45	SEEDS & PLANTS				$143.00			$143.00
	1 SEED				143.00			143.00
46	FERTILIZER-LIME	$222.30			$927.00			$1,149.00
	1 N	222.30			600.00			822.00
	3 MIXED FERTILIZER				327.00			327.00
47	MACHINE HIRE				$100.00			$100.00
	1 TRUCK				100.00			100.00
48	SUPPLIES	$543.90			$458.10			$1,002.00
	3				112.41			112.41
	5 BEDDING				78.33			78.33
	6 SERV DAIRY TANKS	97.63						97.63
	7				54.50			54.50
	8	176.13						176.13
	9	24.97						24.97
	10 OTHER	245.17			212.86			458.03
49	BREEDING FEES	$339.00						$339.00
	3 SEMEN	79.61						79.61
	4	259.39						259.39
50	ADMIN EXP				$492.00			$492.00
	1 ACCOUNTING				83.00			83.00
	9				409.00			409.00
51	VET MEDICINE	$347.72			$212.28			$560.00
	1 VET. SERVICE	75.22			148.56			223.78
	2 MEDICINE				63.72			63.72
	3 VACCINE	54.58						54.58
	4 EQUIPMENT	134.16						134.16
	5 VET SUPPLIES	83.76						83.76
52	GAS-FUEL-OIL	$281.84	3426.67		$743.16	4,022.67		$1,025.00
	1 GASOLINE	149.00	1120.00		284.00	1,716.00		433.00
	3 DIESEL		2306.67		341.00	2,306.67		341.00
	5	77.84			83.29			161.13
	7	31.65			34.87			66.52

TABLE VIII (Continued)

SECTION 2 - DETAIL CASH FLOW SUMMARY - CASH TAXPAYER (CONT)

TI	DESCRIPTION	PREVIOUS BALANCE DOLLARS	TOTALS FOR THIS PERIOD UNITS	POUNDS	DOLLARS	CURRENT TOTALS TO DATE UNITS	POUNDS	DOLLARS
	8	23.35						23.35
54	PROPERTY TAXES	$929.32			$105.68			$1,035.00
	1 REAL ESTATE	727.18						727.18
	3	81.71						81.71
	4	120.43			105.68			226.11
55	GEN. FARM INS.	$653.00						$653.00
	1 HAIL	207.21						207.21
	3 LIVESTOCK	119.87						119.87
	4	130.56						130.56
	6	195.36						195.36
56	FM. UTILITIES	$347.08			$377.92			$725.00
57	CASH FARM RENT				$87.00			$87.00
	9 LAND RENT				87.00			87.00
58	FRGHT-TRUCKING	$320.63			$707.37			$1,028.00
59	CONSERVATION	$525.00			$265.00			$790.00
	TOTAL CURRENT FARM EXPENSES	$8,151.28			$14,766.72			$22,918.00
		*** PURCH OF LVST-GRAIN RESALE ITEMS ***						
72	DAIRY, RESALE	$2,000.00				10.00	5,000.0	$2,000.00
	TOTAL PURCH OF RESALE ITEMS	$2,000.00						$2,000.00
	** TOTAL FARM OUTFLOW **	$10,151.28			$14,766.72			$24,918.00
	** TOTAL NET FARM INFLOW **	$8,425.29			$5,902.71			$14,328.00
	TOTAL NET FM & NONFM INFLOW	$8,425.29			$1,110.71			$9,536.00

aggregation would improve the cost-benefit ratio. Table IX lists the TI codes and GENERAL categories that have been disaggregated.[3]

TI codes 01 and 03 through 09 have special application to non-farm taxable income. For example, itemized family deductions, TI code 04, are divided into doctors, drugs, charities and contributions, health insurance, interest and taxes.

TI codes 07 and 08 represent undivided utilities and auto expenses which can be allocated between the farm and the household at the end of the year. The sub-divisions for the non-farm deductable expenses can be transferred directly to Schedule F (Form 1040), Figure 2. TI codes 11 through 14, and 17 through 19, list raised livestock and raised grain sales which transfer to Part I of Schedule F (Form 1040).

The next sub-category in the Section 2, Cash Flow Summary, Product Income and Other Income, completes the farm income part of Schedule F. Product sales such as milk, eggs, and wool are included in the raised sales section. Other income, such as TI code 32, Machine Work, TI code 35, Patronage Refunds, TI code 36, Government Payments, and TI code 38, Insurance Proceeds, transfer directly to the OTHER FARM INCOME section of Part II, Schedule F. The TI codes 42, 44 through 55, and 57 sub-divide most of the deductable farm expenses. If tax-credit on gasoline is claimed, it is necessary to record the exact number of gallons. TI code 52 lists total gallons for all fuels. The GENERAL categories in TI code 52 allow separate accounting of the gallons of each type of fuel.

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[3]The expansion of the TI codes was programmed by Teresa Weixelman, Manhatten, Kansas. Conversion to the Oklahoma State University Computer and the Costfinder system was done by Mike L. Hardin, Research Assistant.

TABLE IX

THE LIST OF EXPANDED TI AND GENERAL CODES

TI G

01 Taxable Non-farm Income
- 1 Wages
- 2 Rental Income
- 3 Miscellaneous
- 4 Sale of Resale Items
- 5 Sale of Capital Assets

03 Non-farm Deductible Expenses
- 1 Substitute Farm TI Codes

04 Itemized Family Deductions
- 1 Doctors
- 2 Drugs
- 3 Charity
- 4 Health Insurance
- 5 Interest
- 6 Taxes

05 Personal Withdrawals
- 1 Groceries
- 2 Clothing
- 3 Household Operations
- 4 Personal Services
- 5 Nondeductible auto
- 7 Furniture and household
- 8 Equipment
- 9 Depreciable Capital Gain Items

06 Loans to Others

07 Undivided Utilities
- 1 Phone
- 2 Telegraph
- 3 Radio
- 4 Electricity
- 5 Natural Gas
- 6 Water

08 Undivided Auto Expense
- 4 Repairs
- 5 Fuel-oil

09 Memorandum

11 Beef
- Same as TI 14

12 Dairy
- Same as TI 14

13 Sheep
- Same as TI 14

TI G

14 Swine
- 1 Male young
- 2 Female young
- 3 Neuter young
- 4 Male adolescent
- 5 Female adolescent
- 6 Neuter adolescent
- 7 Male adult
- 8 Female adult
- 9 Neuter adult

17 Grain
- 1 Barley
- 2 Corn
- 3 Grain Sorghum
- 4 Oats
- 5 Rye
- 6 Wheat

18 Hay and Forage
- 1 Alfalfa
- 2 Brome
- 3 Bermuda
- 4 Grass
- 5 Native
- 6 Silage
- 7 Sudan
- 8 Straw
- 9 Crop Pasture

19 Cash Crops
- 1 Broomcorn
- 2 Cowpeas
- 3 Cotton
- 4 Guar
- 5 Peanuts
- 6 Pecans
- 7 Fruits, Melons, Berries
- 8 Soybeans
- 9 Vegetables

32 Machine Work
- 1 Livestock Feeding Equipment
- 2 Other Livestock Equipment
- 3 Materials Handling Equipment
- 4 Tillage Machinery
- 5 Planting and Cultivating
- 6 Irrigation and Chemicals
- 7 Harvesting Equipment
- 8 Haying Equipment
- 9 Storage & Processing

35 Patronage Refunds
- 1 Milk
- 2 Wood
- 3 Hogs
- 4 Eggs
- 5 Grain

36 Ag Prog. Payments
- 1 Diversion
- 2 Marketing Cert.
- 3 Soil Bank
- 4 Storage
- 5 A.C.P. Practices
- 6 A.C.P. Fertilizers

37 Tax Refunds
- 1 Gasoline

42 Repairs
- 1 Car
- 2 Truck
- 3 Tractor
- 4 Power Units
- 5 Combine
- 6 Machinery Hay
- 7 Machinery
- 8 Building
- 9 Land Improvement

44 Feed
- 1 Additives
- 2 Salt & Minerals
- 3 Protein Supplement
- 4 Mixed Feed
- 5 Silage
- 6 Pasture
- 7 Grain
- 8 Hay

45 Seeds and Plants
- 1 Seed
- 2 Tuber
- 3 Plants
- 4 Seed Cleaning
- 5 Treatment
- 6 Germination Test
- 7 Certification

TI G

46 Fertilizers
- 1 Fertilizer
- 2 Trace elements
- 3 Lime & Gypsum
- 4 Insecticide
- 5 Herbicide
- 6 Other Chemicals

47 Machine Hire
- Same as TI Code 32

48 Supplies
- 3 Fence Wire
- 4 Bedding
- 5 Servicing (Dairy tank)
- 6 Materials
- 7 Shop Supplies
- 8 Tools
- 9 Office

49 Breeding Fees
- 1 Stud
- 2 Artificial Insemination
- 3 Semen
- 4 Supplies

50 Miscellaneous Expense
- 1 Accounting
- 2 Checking Charges
- 33 Other Bank Charges
- 4 Legal fees
- 5 Performance Bond
- 6 Papers & Registration
- 7 Testing
- 8 Farm Magazines
- 9 Organizations

51 Vet Medicine
- 1 Vet Service
- 2 Medicine
- 3 Vacine
- 4 Equipment
- 5 Supplies

52 Gas Fuel
- 1 Gasoline
- 2 LP Gas
- 3 Diesel
- 4 Kerosene
- 5 Natural Gas
- 6 Grease
- 7 Oil
- 8 Filters
- 9 Additives

TI G

53 Storage
- 1 Warehousing
- 2 Bailments
- 3 Cold Storage
- 4 Brokerage
- 5 Custom Kill

54 Taxes
- 1 Real Estate
- 2 Personal
- 3 Licenses
- 4 Permits
- 5 Sales

55 Insurance Premiums
- 1 Hail
- 2 Crop
- 3 Livestock
- 4 Vehicle
- 5 Equipment
- 6 Building
- 7 Liability

SCHEDULE F (Form 1040)
Department of the Treasury
Internal Revenue Service

Farm Income and Expenses

(Compute social security self-employment tax on Schedule SE)
► Attach to Form 1040.
► If rental income, see instruction C before using this schedule.

1972

Name(s) as shown on Form 1040: James A. and Jane W. Brown
Social security number: 579 | 28 | 6685

Business name and address: James A. Brown, R.R. 1, Box 25, Hometown, State
Location of farm(s) and number of acres in each farm: Same 160 Acres
If you filed Form 943, enter employer identification number here: 57 | 6041492

Part I Farm Income—Cash Receipts and Disbursements Method

Do not include sales of livestock held for draft, breeding, sport, or dairy purposes; report such sales on Form 4797.

Sales of Purchased Livestock and Other Items Purchased for Resale

a. Description	b. Amount received	c. Cost or other basis
1 Livestock: Heifers Purchased For Resale (10)	$ 3,450	$ 2,000
2 Other items:		
3 Totals	$ 3,450	$ 2,000
4 Profit (or loss), subtract line 3, column c from line 3, column b ►		$ 1,450

Sales of Market Livestock and Produce Raised and Held Primarily for Sale and Other Farm Income

Kind	Quantity	Amount
5 Cattle		
6 Calves	33	$1,658
7 Sheep		
8 Swine		
9 Poultry		
10 Dairy products	5,850 cwt.	32,236
11 Eggs		
12 Wool		
13 Cotton		
14 Tobacco		
15 Vegetables		
16 Grain		
17 Fruits and nuts		
18 Other (specify): Hay	32½ Tons	813
OTHER FARM INCOME		
19 Machine work		
20 Patronage dividends		250
21 Per-unit retains		
22 Agricultural program payments: (1) Cash		22
(2) Materials and services		160
23 Commodity Credit loans under election (or forfeited)		275
24 Federal gasoline tax credit		68
25 State gasoline tax refund		
26 Other (specify): Crop Ins. Proceeds		314
27 Add lines 5 through 26		$ 35,796
28 Gross profit *(add lines 4 and 27) ►		$ 37,246

Part II Farm Deductions—For Cash and Accrual Method Taxpayers

F

Do not include personal or living expenses not attributable to production of farm income, such as taxes, insurance, repairs, etc., on your dwelling.

Items	Amount
29 Labor hired	$ 2,219
30 Repairs, maintenance	1,618
31 Interest	1,862
32 Rent of farm, pasture	87
33 Feed purchased	8,091
34 Seed, plants purchased	143
35 Fertilizers, lime	1,149
36 Machine hire	100
37 Supplies purchased	1,002
38 Breeding fees	339
39 Veterinary, medicine	560
40 Gasoline, fuel, oil	1,025
41 Storage, warehousing	
42 Taxes	1,035
43 Insurance	653
44 Utilities	725
45 Freight, trucking	1,028
46 Conservation expenses	790
47 Land clearing expenses	
48 Pension and profit-sharing plans (see instructions)	
49 Employee benefit programs other than line 48 (see instructions)	
50 Other (specify): Advertising	234
Financial Records	83
Farm Org. Dues	175
Death Loss - Heifer Purch For Resale	225
51 Add lines 29 through 50 ►	$ 23,143
52 Depreciation (from line 59, Part III) ►	5,010
53 Total deductions. Add lines 51 and 52 ►	$ 28,153

54 Net farm profit (or loss) (subtract line 53 from 28). Enter here and on line 39, Form 1040. ALSO enter on Schedule SE, Part II, line 4a ► $ 9,093

* Use amount on line 28 for optional method of computing net earnings from self-employment. (See line 6, Part II, Schedule SE.)

Figure 2. Farm Income and Expenses, Schedule F (Form 1040)

To the extent that the merit of these TI sub-divisions is measured in terms of their ability to transfer directly to a line or section of the tax return, the non-farm TI codes meet the requirements much better than the farm TI codes. While the primary objective of the farm TI sub-divisions is to facilitate detailed analysis of farm income and expenses and to enhance the detection and correction of cash flow and coding errors, it does have tax reporting advantages for some farmers. The complexity of most farms does not allow all the income and expense items to fit into the designated tax categories. It often requires the addition or subtraction of items from one sub-total or the other. If these adjustments become necessary, the possibility of error may be reduced by printing TI totals and the GENERAL sub-totals.

Tax Accounting of Items Purchased for Resale

An important part of tax management is cost accounting of livestock and other items purchased for resale; for only the gain from these sales is taxable income. Therefore, accurate retention of the cost of these animals is essential. The Farmer's Tax Guide states that if the farmer is unable to identify the animal sold, he must use the first-in first-out method of identification.[4] Thus, the animal first purchased would be listed as the first animal sold. Also, care must be taken to deduct the cost of an animal in the year of its sale.

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[4]Department of the Treasury, Internal Revenue Service, Farmer's Tax Guide, 1973 Edition, p. 6.

The Livestock Purchased for Resale program was operated on a test basis in 1972 on 15 farms.[5] The primary purpose of this program is to provide a systematic accounting of the disposition of livestock purchased for resale and to compute the gain or margin on these items for tax reporting on a cash basis.

Data required for this program is the same that is normally reported through the Costfinder system with the exception of the cost of purchased livestock which was on hand at the time of first enrollment in the Purchased for Resale Program. If the farmer was enrolled in this program the previous year, it is not necessary to report cost data. The actual cost and date of purchase are stored on the Master Transaction File.

Livestock Purchased for Resale Program Printouts

The Livestock Purchased for Resale Program consists of four output sections, 71 through 74, listed in Table X. Section 71, Transaction Journal, prints the input transactions that generate this printout. This section also provides the farmer an opportunity to edit the input data and facilitates his interpretation of the printed results. Section 72 and 73 print the sales and purchases, respectively, of items purchased for resale. Each purchase transaction is given a unique identification number. Each sale transaction processed receives the identification number of the purchase line from which the animals were sold. The ID

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[5]The Livestock Purchased for Resale program was initiated by Ted R. Nelson, Extension Economist, Oklahoma State University, and Larry Langemeier, Extension Economist, Kansas State University. Actual programming was done by Teresa Weixelman, Manhattan, Kansas. Conversion to Oklahoma State University computer and Costfinder system was done by Mike Hardin, Research Assistant.

TABLE X

THE LIVESTOCK PURCHASED FOR RESALE PROGRAM PRINTOUT

COMPUTERIZED-OKLA-ST-FARM-INCOME-AND DETAILED-ENTERPRISE-RECORD-SYSTEM

SECTION 71 - TRANSACTION JOURNAL FARM NUMBER OK007200 DATE PROCESSED 03/21/73 PAGE 1

CL	MO	DY	AC	TI	GD	ENT	LOT	EXT	DESCRIPTION	CHECK NO	UNITS	Q	PRICE	POUNDS	DOLLARS
6	11	4	11			1	00	12	TRANSFERRED IN		50.00	HEAD			5,250.00
1	71	5	11			12	00		INVENTORY COWS		100.00	HEAD			20,000.00
5	10	8	11			12	00		WEANED CALVES		93.00	HEAD			.00
3	4		61			14	00		SELL BEEF		50.00	HEAD	30.00	50,000.0	15,000.00
6	20		61			14	00		SELL BEEF		49.00	HEAD	29.00	51,450.0	14,920.50
4	13	9	61			14	10		DIED		1.00	HEAD		800.0	.00
6	1	9	61			14	00		DIED		1.00	HEAD		1,000.0	.00
3	4		61			16	00		SELL BEEF		250.00	HEAD	32.00	250,000.0	80,000.00
6	10		64			45	00		SELL PIGS		10.00	HEAD		2,000.0	420.00
6	15		67						SELL GRAIN		10,000.00	BSL		560,000.0	12,200.00
2	15		71			14	00		PURCHASE BEEF		50.00	HEAD	33.00	35,000.0	11,550.00
6	11		71			14	00		PURCHASE BEEF		40.00	HEAD	34.00	24,000.0	8,160.00
12	10		71			14	00		PURCHASE BEEF	CUST2	50.00	HEAD	32.00	40,000.0	12,800.00
12	15		71			14	10		PURCHASE BEEF	CUST2	100.00	HEAD	36.00	40,000.0	14,400.00
1	71	5	71			14	10		INV		100.00	HEAD			50,000.00
1	71	5	71			14	00		INV		50.00	HEAD			20,000.00
4	10		71			16	00		PURCHASE BEEF		100.00	HEAD	35.00	50,000.0	17,500.00
12	1		71			16	00		PURCHASE BEEF	CUST2	500.00	HEAD	34.00	300,000.0	102,000.00
1	71	5	71			16	00		INV		500.00	HEAD			100,000.00
4	10		74			45	00		BUY PIGS		1,000.00	HEAD		30,000.0	10,000.00
5	1		74			45	00		BUY PIGS		100.00	HEAD		4,000.0	2,000.00
4	1		77						PURCH GRAIN		20,000.00	BSL		1,120,000.0	24,000.00

COMPUTERIZED-OKLA-ST-FARM-INCOME-AND DETAILED-ENTERPRISE-RECORD-SYSTEM

SECTION 71 - TRANSACTION JOURNAL FARM NUMBER OK007200 DATE PROCESSED 03/20/73 PAGE 1

UL	MO	DY	AC	TI	GD	ENT	LOT	EXT	DESCRIPTION	CHECK NO	UNITS	Q	PRICE	POUNDS	DOLLARS
7	15	9	11			14	00		DIED		2.00	HEAD			.00
8	16	4	11			12	00	1	TRANSFERRED OUT		41.00	HEAD			8,118.00
8	23		61			14	10		SALE OF BEEF		99.00	HEAD	31.00	106,900.0	33,759.00
11	1		61			14	00		SELL BEEF		40.00	HEAD	28.00	40,400.0	11,312.00
7	25		61			16	00		SELL BEEF		250.00	HEAD	32.00	275,000.0	88,000.00
9	20		61			16	00		SELL BEEF		100.00	HEAD	31.00	100,000.0	31,000.00
7	10		64			45	00		SELL PIGS		900.00	HEAD		180,000.0	45,000.00
7	16		67						SELL GRAIN		5,000.00	BSL		280,000.0	6,750.00
7	12		71			14	10		PURCHASE BEEF		100.00	HEAD	37.00	40,000.0	14,800.00
9	13		71			14	10		PURCHASE BEEF		225.00	HEAD	38.00	67,500.0	25,650.00
11	16		71			14	10		PURCHASE BEEF		110.00	HEAD	35.00	55,000.0	19,250.00
11	14		71			16	00		PURCHASE BEEF		600.00	HEAD	33.00	360,000.0	126,000.00

TABLE X (Continued)

SECTION 72 - SALES OF ITEMS PURCHASED FOR RESALE FARM NUMBER DK007200 DATE PROCESSED 03/20/73 PAGE 2

SALES DATE	ID	ATI	ENT	LOT	SALE TOTAL HEAD	SALE TOTAL POUNDS	SALE TOTAL DOLLARS	PER UNIT POUNDS	PER UNIT DOLLARS	PER UNIT GAIN POUNDS	PER UNIT GAIN DOLLARS	TOTAL SALE GAIN POUNDS	TOTAL SALE GAIN DOLLARS
07/25/73	1	61	16	00	250.00	275,000.0	88,000.00	1,100	352.00	500	148.00	125,000.0	37,000.00
08/23/73	3	61	14	10	99.00	108,900.0	33,759.00	1,100	341.00	700	197.00	69,300.0	19,503.00
09/20/73	5	61	16	00	100.00	100,000.0	31,000.00	1,000	310.00	500	135.00	50,000.0	13,500.00
11/01/73	6	61	14	00	40.00	40,400.0	11,312.00	1,010	282.80	610	78.80	16,400.0	3,152.00
07/10/73	7	64	45	00	900.00	180,000.0	45,000.00	200	50.00	170	40.00	153,000.0	36,000.00
07/18/73	9	67			5,000.00	280,000.0	6,750.00	56	1.35		.15		750.00
TOTAL SALES					6,389.00	984,300.0	215,821.00						

SECTION 73 - PURCHASES OF ITEMS PURCHASED FOR RESALE

PURCHASES DATE	ID	ATI	ENT	LOT	PURCHASE TOTAL UNITS	PURCHASE TOTAL POUNDS	PURCHASE TOTAL DOLLARS	PER HEAD POUNDS	PER HEAD DOLLARS	SALES PREV PD	SALES CRT PD	TOTAL HEAD TOT SOLD	TOTAL HEAD DEATHS	TOTAL HEAD ON HAND
12/01/72	1	71	16	00	500.00	300,000.0	102,000.00	600	204.00	250	250	500		
12/10/72	2	71	14	00	50.00	40,000.0	12,800.00	800	256.00	50		50		
12/15/72	3	71	14	10	100.00	40,000.0	14,400.00	400	144.00	1	99	100		
02/15/73	4	71	14	00	50.00	35,000.0	11,550.00	700	231.00	50		50		
04/10/73	5	71	16	00	100.00	50,000.0	17,500.00	500	175.00		100	100		
06/11/73	6	71	14	00	40.00	24,000.0	8,160.00	600	204.00		40	40		
07/12/73	10	71	14	10	100.00	40,000.0	14,800.00	400	148.00					100
09/15/73	11	71	14	10	225.00	67,500.0	25,650.00	300	114.00					225
11/14/73	13	71	16	00	600.00	360,000.0	126,000.00	600	210.00					600
11/16/73	12	71	14	10	110.00	55,000.0	19,250.00	500	175.00					110
04/10/73	7	74	45	00	1,000.00	30,000.0	10,000.00	30	10.00	10	900	910		90
05/01/73	8	74	45	00	100.00	4,000.0	2,000.00	40	20.00					100
04/01/73	9	77			20,000.00	1,120,000.0	24,000.00	56	1.20	10,000	5,000	15,000		5,000
TOTAL PURCHASES					22,975.00	2,165,500.0	388,110.00							

SALE GAIN TABLE TI	ITEM	CURRENT PERIOD GAIN HEAD	CURRENT PERIOD GAIN POUNDS	CURRENT PERIOD GAIN DOLLARS	PREV PER GAIN DOLLARS	TOTAL TO DATE GAIN UNITS	TOTAL TO DATE GAIN POUNDS	TOTAL TO DATE GAIN DOLLARS	TOTAL TO DATE SALE DOLLARS	TOTAL TO DATE PUR. DOLLARS
61	BEEF	489.0	260,700.0	73,153.50	34,426.50	640.0	368,550.0	107,581.50	273,991.50	166,410.00
64	SWINE	900.0	153,000.0	36,000.00	320.00	910.0	154,700.0	36,320.00	45,420.00	9,100.00
67	GRAIN	5,000.0		750.00	200.00	15,000.0		950.00	18,950.00	18,000.00
TOTAL GAIN		6,389.0	413,700.0	109,903.00	34,946.50	16,750.0	543,250.0	144,851.50	338,361.50	193,510.00

SECTION 74 - LIVESTOCK INVENTORY TABLE

ENT	INVENTORIED	PURCHASED	WEANED	TRANSFER IN	TRANSFER OUT	DIED	SOLD	ON HAND
1230			93.0	90.0	41.0	2.0		190.0
1400		90.0				1.0	139.0	50.0-
1410		435.0				1.0	99.0	335.0
1600		700.0					600.0	100.0
4200		1,100.0					910.0	190.0
C100				41.0	50.0			9.0-
TOTAL		2,325.0	93.0	91.0	91.0	4.0	1,748.0	666.0

number printed in Section 72 indicates which purchase line was used to calculate gain per head.

The last section of the Purchase for Resale Program, Section 74, Livestock Inventory Table, appears in Table X. All livestock items, whether raised animals, capital livestock, or items purchased for resale are included in this table. For each enterprise, total head inventoried, purchased, weaned, transferred in and out, died, sold, and remaining on hand are printed.

Operational Problems

In the Costfinder system, internal transfers are used to transfer items or to adjust totals among the different enterprises within a farm. For example, a breeding enterprise should be credited when raised animals are internally moved to a fattening enterprise, or an item which has been recorded in the overhead enterprise can be subtracted from overhead and added to any other enterprise. In either case, the proper total is algebraically increased or decreased by a specified amount. However, if animals are internally transferred in the Purchased for Resale Program, a new line entry is created. If heifers purchased for resale are transferred into a cow-calf enterprise to become replacements, the purchase line must be deleted from the purchase table. Logic changes are designed to allow transfer of animals into a purchased for resale enterprise, among two enterprises, or out of a purchased for resale enterprise. If "PURCH" is coded in the acres column of an internal transfer, the proper adjustments are made to the purchase or sale table of the program, otherwise, the internal transfer transaction effects only the Livestock Inventory Table, Table X.

Correction Procedures

While the Farmer's Tax Guide allows identification of items purchased for resale on a first-in first-out basis, some farmers identify specific purchase and sale transactions. For these farmers, the correction logic in the original program does not allow correction of a specific transaction unless it happens to be the first one that matches TI and Enterprise code.

Changes in the program logic allow corrections based on the following procedure: when a transaction is read into the purchase table it is assigned a unique identification number. If this identification number is included in the correcting entry, a specific input transaction can be corrected or internally transferred by matching its identification number.

If the identification number is not reported for a correction or internal transfer, the first-in first-out correction logic will be used.

Because of the problems encountered in the purchased for resale program, a substantial portion of the logic has been rewritten to allow internal transfer and correction of a specific sale or purchase line.

Depreciation Analysis

Computation of depreciation is probably one of the most complicated procedures faced by farmers. Depreciation methods, holdings periods, investment credit, capital gain, and remaining basis are just a few of the terms that must be understood to report deductable depreciation expenses. Since it is beyond the scope of this study to explain the

depreciation program in detail, the object of further discussion is to explain the procedure for data reporting, to indicate some of the depreciation alternatives available to the Costfinder cooperator, and to discuss the output information provided by the Costfinder depreciation program.[6]

When a farmer enrolls in the Costfinder program, he must report all land, machinery, buildings, and breeding livestock on the Capital Asset Depreciation Schedule, Figure 3. The capital asset depreciation divider in the Costfinder notebook explains each column of the input form. This divider also lists the different depreciation alternatives available. Starting depreciation information is reported only once. After this data is completed, any other information required such as sales, purchases, trades, and losses of capital assets is gleaned from the periodic income and expense data.

As mentioned earlier, all data transactions reported are stored on the Master Transaction File. After the third quarter or ninth month of input data has been processed, the Master Transaction File is read by the Capital Strip program which prints only the sales, trades, losses, and new purchases of capital assets. Table XI shows a sample output of this program.

This output is mailed to the farmer in October regardless of the number of months of data the farmer has reported. Errors, omissions,

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[6]The Depreciation program was initiated in 1966 by Ted R. Nelson, Extension Economist and programmed by Oakley Hall, student programer. Frequent tax law changes require almost yearly modifications. The changes have been done by Mike L. Hardin, Research Assistant, and Dan Hardin, student programer.

CAPITAL ASSET DEPRECIATION SCHEDULE

(Land, Machinery, and Buildings; Breeding and Workstock)

Farm No. _____
Year _____
Page _____ of _____ pages

Line	Oper	Lid	CODE: Acct	Tran	Item	Gen	Det	Ent	Lot	Beg. Yr.	DESCRIPTION	Units	1 Date Bought Da | Mo | Yr	2 Orig. Cost $	3 Sal-vage $ Value	4 7% or 20%	4 Met Used	4 Est. Life	5 Ann. Depr. $	6 Value Beg. of Year $
1																				
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
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CF 2

Figure 3. Input Form for Capital Assets

TABLE XI

SECTION 6, SALES, TRADES, AND LOSSES

COMPUTERIZED-GALA-ST-FARM-INCOME-AND-DETAILED-ENTERPRISE-RECORD-SYSTEM

SECTION 6 SALES, TRADES AND LOSSES FOR 1972 FARM NUMBER 0072 1972 DATA DATE PROCESSED 03/20/73 PAGE 1

CL	MC	DY	AC	TI	GD	EN	OS	LOT	EXT	DESCRIPTION	OLD ASSET	UNITS	U	NEW ASSET	POUNDS	DOLLARS
	4	30	9	62	50	1	4	00		PUR HFR DIED	**** ****	1.00	HD		525.0	225.00
	8	14	9	62	50	2	1	00		RESALE HFR DIED	**** ****	1.00	HD			225.00
	12	23		82	50	2	1	00		DAIRY COW SOLD001	****P0146****	1.00	HD		1,200.0	208.00
	4	4		82	85	2	1	00		DAIRY COW SOLD	****P0162****	1.00	HD		1,200.0	164.00
	10	1		82	85	2	1	00		DAIRY COW SOLD	****P0148****	1.00	HD			200.00
	3	17	3	86	30	7	0	00		TRACTOR TRADED	****P0118****			****00133****		2,400.00
	1	6		86	31	2	0	00		TRACTOR SOLD	****P0116****					700.00
	2	18		87	82					MOWER SOLD	****P0117****					70.00

ASSET PG	LN	DL PL	*ASSET-CODE* A	TI	GD	EULT	DESCRIPTION OF ASSET	BG YR	BOUGHT DY	MO	YR	BOOT PAID	SALVAGE VALUE	7 OR 20 CODE	METHOD USED DC.	EST. LF. CODE	GIVEN DEPR. OR % D.B.
			6	92	70	2100	DAIRY BULL	72	1	6	72	800.00					
			6	92	80	2150	DAIRY COW	72	4	1	72	500.00					
			6	92	80	2100	DAIRY COW	72	3	2	72	500.00					
			6	92	80	2100	DAIRY COW	72	1	9	72	500.00					
			6	96	20	2000	PICK-UP	72	1	3	72	4,000.00					
			6	96	34		TRACTOR PURCHASE	72	17	3	72	1,800.00					
			6	96	51	7000	PURCHASE COMBINE	72	6	4	72	4,821.00					
			6	97			MACHINE LOAN	72	73		72	4,000.00					
			6	98			GRAIN BIN LOAN	72	73		72	570.00					

or duplications of sales, trades, and losses can be corrected at this time. Also the farmer may provide salvage value, 7 or 20 code, method used, and estimated life for the capital assets purchased this year. When this completed Section 6 is mailed back to the processing center, a preliminary depreciation schedule can be processed. The farmer can also report this information on the Capital Asset Depreciation Schedule input form and have the same effect. The object of running a preliminary depreciation schedule is to give the farmer an estimate of his depreciation based on data received. This represents one more piece of information needed to estimate taxable income for the year. The timing of this information allows the farmer to make business decisions before the end of the year to maximize net income after taxes.

When all data for the fiscal year has been processed for a farm, the sales, trades, losses, and purchases that have been reported since the preliminary depreciation are printed and mailed to the farmer for correction. Based on this new information, decisions can be made concerning final depreciation.

Table XII is a sample of Section 7 through 9, Capital Asset Depreciation Output. Section 7 provides a list of all capital assets. The information reported on the input form, Figure 3, is reprinted. In addition, THIS YEARS DEPREC which is the amount of depreciation allowed for this fiscal year is also printed. ENDING VALUE is the BEGIN VALUE less THIS YEARS DEPREC. The appearance of an "R" at the right of ENDING VALUE indicates the remaining basis of an item leaving the depreciation schedule through sale, trade, or loss. The last column, TAX CREDIT, is the amount of seven percent tax credit attributable to the particular item.

TABLE XII

THE CAPITAL ASSET DEPRECIATION PROGRAM PRINTOUT

COMPUTERIZED-OKLA-ST-FARM-INCOME-AND-DETAILED-ENTERPRISE-RECORD-SYSTEM

SECTION 7 ASSET DEPRECIATION FARM NUMBER JK007200 1972 DATE PROCESSED 03/20/73 PAGE 1

CAPITAL ASSET DEPRECIATION SCHEDULE (FROM OLD TAX DEPRECIATION SCHEDULE) ERROR CODES EXPLAINED FOLLOWING SECTION XIV

ASSET PG	LN	PL	A	*ASSET-CODE* TI	GD	EULT	DESCRIPTION OF ASSET	UNITS	BG YR	BOUGHT DY	MO	YR	SOLD DY	MO	ORIGINAL COST	SALVAGE VALUE	7 M ES 20 U LF	GIVEN DEPREC	BEGIN VALUE	THIS YEARS DEPREC	ENDING VALUE	TAX CREDIT	
1	30	6	96	11			CAR FARMSHARE		72	7	1	71			1900.00	500.00	1 1 4	350.00	1550.00	350.00	1200.00		N
1	1	6	98	11	2000	BARN			72	8	1	64			6400.00		1 25	256.00	4352.00	256.00	4096.00		
1	2	6	98	61	2000	FENCES			72	8	1	64			1260.00	60.00	4 10	120.00	300.00	120.00	180.00	88.20	A
1	3	6	98	31	2000	SILO			72	2	7	67			4560.00	3	4 15	304.00	3192.00	304.00	2888.00	319.20	
1	4	6	98	11		GRAIN BINS			72	12	27	69			3185.00	200.00	3 1 15	199.00	2787.00	199.00	2588.00		N
1	16	0	96	31	2000	TRACTOR			72	25	6	64	6	1	4390.00	393.00	4 8	500.00	640.00		640.00R		
1	17	0	97	82		MOWER			72	25	4	65	18	2	390.00	30.00	9 6	60.00	30.00		30.00R		
1	18	3	96	33	7000	TRACTOR			72	30	3	68	17	3	4000.00	350.00	3 1 10	400.00	2500.00	100.00	2400.00R	186.67-	
1	20	6	97	94		FUEL TANKS			72	10	4	69			820.00		1 20	41.00	707.25	41.00	666.25	57.40	A
1	31	6	96	20	7000	TRUCK			72	10	1	71			2418.00	150.00	2 2 6		1761.20	587.01	1174.19		N
1	46	0	92	80	2100	DAIRY COW			72	27	2	70	23	12	400.00	125.00	1 5		299.00	55.00	244.00R		
1	47	9	92	80	2147	DAIRY COW			72	29	6	70	4	7	400.00	125.00	1 5		317.00	27.50	289.50R		
1	48	C	92	84		DAIRY COW			72	11	5	70	1	10	500.00	150.00	1 4 5	70.00	232.00	52.50	179.50R		N
1	49	6	92	10	2153	DAIRY CALF			72	8	1	71			125.00	125.00	9 7		125.00		125.00		
1	50	6	92	80	2100	DAIRY COWS		010	72	1	2	68			0.00	1200.00	9 4		1200.00		1200.00		
1	61	0	52	80	2154	DAIRY COW			72	4	10	71			500.00	150.00	1 5		482.00	70.00	412.00	23.33	A
2	1	0	96	20		TRUCK			72	1	8	56			2000.00	100.00	9 10		100.00		100.00		
2	2	6	96	32	7000	TRACTOR			72	8	6	69			4000.00	350.00	9 6		350.00		350.00		
2	3	6	96	60	7000	SWATHER			72	18	2	67			2181.00	115.25	1 9		1071.66	229.52	842.14	152.67	A
2	4	6	97	41	7000	PLOW			72	8	6	65			600.00	50.00	9 6		50.00		50.00	28.00	A
2	5	6	97	43	7000	DISC			72	8	6	65			650.00	50.00	9 6		50.00		50.00	30.33	A
2	6	6	97	41	7000	GRAIN DRILL			72	1	8	64			800.00	100.00	9 6		100.00		100.00	37.33	A
2	7	6	97	40	7000	ROLLER-HARROW			72	1	6	66			800.00	100.00	9 5		100.00		100.00	37.33	A
2	9	6	98	10		BARN			72	1	1	70			3200.00		1 25	128.00	2994.00	128.00	2866.00		
2	10	6	96	61		FENCES			72	1	1	67			793.00	85.00	4 6	118.00	118.00	33.00	85.00	37.00	A
2	11	6	92	80	2100	DAIRY COWS		020	72	8	1	65			6000.00	1800.00	9 6		1800.00		1800.00		
2	12	6	92	80	2100	DAIRY COWS		010	72	5	1	65			4000.00	1000.00	9 5		1000.00		1000.00		
2	13	6	92	80	2100	DAIRY COW			72	12	3	71			434.00	150.00	1 5		236.86	56.80	180.06		
2	14	6	92	80	2100	DAIRY COW			72	12	3	71			250.00	56.33	1 4		145.00	48.41	96.59		
1	32	6	96	51	7000	COMBINE			72	6	4	72			4821.00	400.00	6 1 10			259.26	3597.54	337.47	T
							20 PERCENT FIRST YEAR DEPRECIATION TAKEN ON ABOVE ASSET													964.20			
							TRADED ITEM PAGE AND LINE 0118 REMAINING BASIS OF								2400.00	HAS BEEN TRADED ON FOLLOWING ASSET							
							CASH BOOT PAID ON FOLLOWING ASSET WAS								1800.00								
1	33	6	96	34			TRACTOR PURCH		72	17	3	72			4200.00	350.00	6 1 8			327.19	3512.81	294.00	T
							20 PERCENT FIRST YEAR DEPRECIATION TAKEN ON ABOVE ASSET													360.00			
1	62	C	92	80	2159	DAIRY COW		000	72	4	1	72	4	4	500.00	150.00	1 5				500.00R		
1	63	6	92	84	2100	DAIRY COW			72	3	2	72			500.00	150.00	1 1 5	70.00		64.17	435.83	11.66	
1	64	6	92	74	2100	DAIRY BULL			72	1	6	72			800.00	200.00	1 1 4	150.00		87.50	712.50	18.66	
1	65	6	92	64	2100	DAIRY COW			72	1	9	72			500.00	150.00	1 1 5	70.00		23.34	476.66	11.66	
2	2	6	96	20	2000	PICK-UP			72	1	3	72			4000.00	200.00	1 10			316.66	3683.34	280.00	A

TABLE XII (Continued)

SECTION 8 DEPRECIATION TOTALS FARM NUMBER OK007200 1972 DATE PROCESSED 03/20/73 PAGE 3

ASSET DESCRIPTION	ITEM CODE	ORIGINAL COST	BEGIN VALUE	STR-LINE DEPREC	DECL-BAL DEPREC	SUM-OF-DGT DEPREC	ACC-FST-YR DEPREC	THIS YEARS DEPRECIATION	THS-YRS-TAX CREDIT	ENDING VALUE
OPERATORS DEPRECIATION TOTALS										
DAIRY BREEDING STOCK	2	14,909.00	5,836.86	485.22				485.22	41.98	6,438.64
VEHICLES, SP EQUIP	6	33,910.00	7,972.86	1,582.63	627.01		1,324.20	3,493.84	911.47	14,460.02
MACHINERY	7	4,060.00	1,037.25	41.00				41.00		966.25
BUILD, FENCE, LND IM	8	19,398.00	13,743.00	1,040.00				1,040.00		12,703.00
OPERATOR TOTALS		72,277.00	28,589.97	3,148.85	627.01		1,324.20	5,010.06	953.45	34,567.91
LANDLORDS DEPRECIATION TOTALS										
LANDLORD TOTALS										
WHOLE FARM DEPRECIATION TOTALS										
DAIRY BREEDING STOCK	2	14,909.00	5,836.86	485.22				485.22	41.98	6,438.64
VEHICLES, SP EQUIP	6	33,910.00	7,972.86	1,582.63	627.01		1,324.20	3,493.84	911.47	14,460.02
MACHINERY	7	4,060.00	1,037.25	41.00				41.00		966.25
BUILD, FENCE, LND IM	8	19,398.00	13,743.00	1,040.00				1,040.00		12,703.00
WHOLE FARM TOTALS		72,277.00	28,589.97	3,148.85	627.01		1,324.20	5,010.06	953.45	34,567.91

REPORTED DISPOSAL OF ASSET HAS NOT BEEN RECOGNIZED 33007200081496250210000RESALE HEREFORD 000000000001001000000000000000000022500

SECTION 9 GAINS AND LOSSES FROM SALES AND TRADES FARM NUMBER OK007200 1972 DATE PROCESSED 03/20/73 PAGE 3

PG	LN	ASSET ATIGD	ASSET-CODE EULT	DESCRIPTION OF ASSET	NUM HU	BOUGHT DY	BOUGHT MO	BOUGHT YR	SOLD DY	SOLD MO	SALE PRICE	ORIGINAL COST	TOT DEPREC TAKEN	ADJUSTED BASIS	ORDINARY GAIN	CAPITAL GAIN	***SECTION 1245** ORD.GAIN	CAP.GAIN
1	16	08631	2000	TRACTOR		25	6	64	6	1	700.00	4390.00	3750.00	640.00	60.00			
1	17	08782		MOWER		25	4	65	18	2	70.00	390.00	360.00	30.00	40.00			
1	18	38633	7000	TRACTOR		30	3	68	17	3		4000.00	1600.00	2400.00				
1	46	08280	2100	DAIRY COW		27	2	70	23	12	208.00	400.00	156.00	244.00		36.00-		
1	47	98280	2147	DAIRY COW		29	6	70	4	7	89.00 I	400.00	110.50	289.50		200.50-		
1	48	38284		DAIRY COW		11	5	70	1	10	200.00	500.00	320.50	179.50			20.50	
1	62	08280	2159	DAIRY COW	000	4	1	72	4	4	164.00	500.00		500.00	336.00-			
				TOTAL-GAIN BROKEN DOWN INTO 3 PARTS AS ON SCHEDULE D AND TOTAL LOSS											236.00-	236.50-	20.50	

TAX CREDIT TO BE RECAPTURED IS $186.67

EXPLANATION OF ERROR CODES
A = TAX CREDIT ALLOWABLE BUT WAS NOT SPECIFIED IN ' 7 OR 20 ' CODE
B = BEGINNING YEAR IS BLANK OR GREATER THAN 1972
C = CODE IS INCOMPLETE FOR CLASSIFICATION OF ASSET
I = INSURANCE ADJUSTMENT. REDUCE LINE 36 ON CASH-FLOWS ACCORDINGLY FOR TAX PURPOSES.
L = LIFE SPECIFIED IS INCONSISTANT WITH ' 7 OR 20 ' CODE
M = MORE UNITS CALLED ON SALE ENTRIES THAN WERE PRESENT ON THIS DEPRECIATION LINE
N = TAX CREDIT NOT ALLOWABLE BECAUSE ITEM WAS PURCHASED BEFORE 1962 OR BETWEEN APRIL 18, 1969 AND APRIL 1, 1971
R = REMAINING BASIS OF ITEM SOLD, TRADED, OR LOST
T = 20 PERCENT FIRST YEAR DEPRECIATION WAS REPORTED
U = PROGRAM DOES NOT HANDLE SPLIT OF CAPITAL AND ORDINARY GAIN ON LIVESTOCK SOLD USING SUM-OF-YEARS-DIGITS DEPRECIATION
V = INSUFFICIENT INFORMATION TO CALCULATE SPLIT OF CAPITAL AND ORDINARY GAIN FOR LIVESTOCK DEPRECIATED TO ITS SALVAGE VALUE

Farmers can choose the order in which the assets appear. They can be sorted to ascending order according to the four-digit TIGD code or sorted to appear in ascending order according to the page and line number. An asset receives a unique identification from either the capital asset input form or from the information returned on the Section 6, Sales, Trades, and Losses.

Section 8, Depreciation Totals, lists summary totals for all items in Section 7 which have the same ITEM CODE.[7] Some of the ITEM CODES include beef, dairy, sheep, and swine breeding stock, vehicles, machinery, and buildings.

Gains and Losses from Sales and Trades, Section 9, summerizes the items which should be reported on Schedule D (Form 1120), Figure 4. An explanation of the error codes that appear after the tax credit amount in Section 7, is in Table XII.

Programming changes in this chapter were given top priority. The value of these changes are difficult to measure until the new versions have been used. If these modifications and new programs improve the organization, readability, and understanding of the output generated, one objective has been met. In this case, the logic of the programs would not have been disturbed if the changes were not considered to be a substantial improvement.

The capital asset depreciation program is designed to provide all necessary tax and management information about currently held, purchased, sold, and traded capital and raised assets. Programming changes in the

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[7] ITEM CODE is the second digit in Costfinder code.

SCHEDULE D (Form 1120)
Department of the Treasury
Internal Revenue Service

Capital Gains and Losses

For the calendar year 1972, or other taxable year beginning ....., 1972, and ending ....., 19.....

1972 (143)

Name: James A. and Jane W. Brown

Employer Identification Number:

Part I Short-term Capital Gains and Losses—Assets Held 6 Months or Less

a. Kind of property and description (Example, 100 shares of "Z" Co.)	b. Date acquired (mo., day, yr.)	c. Date sold (mo., day, yr.)	d. Gross sales price	e. Cost or other basis and expense of sale	f. Gain or (loss) (d less e)
1 Bad Debt	10/8/67	Worthless		$50	($50)
25 Shares-H.T. Corp Stock	12/1/71	3/5/72	$380	$430	($50)

2 Unused capital loss carryover (attach computation) . . . . .

3 Net short-term capital gain or (loss) . . . . . ($100)

Part II Long-term Capital Gains and Losses—Assets Held More Than 6 Months

4 Enter Section 1231 gain from line 4(a)(1), Form 4797 . . . . .

540 Shares-H.T. Corp St	1960	7/1/72	$1,000	$255	$745

6 Net long-term capital gain or (loss) . . . . .

Part III Summary of Schedule D Gains and Losses

7 Enter excess of net short-term capital gain (line 3) over net long-term capital loss (line 6) . . . .

8 Enter excess of net long-term capital gain (line 6) over net short-term capital loss (line 3) . . . .

9 Total of lines 7 and 8. Enter here and on Form 1120, page 1, line 9(a) . . . . .

Part IV Alternative Tax Computation (See Instructions)

10 Taxable income (line 1, Schedule J, page 3, Form 1120) . . . . .

11 Excess of net long-term capital gain over net short-term capital loss (line 8) . . . . .

12 Line 10 less line 11 . . . . .

13 Surtax exemption—Enter line 12 or $25,000, whichever is lesser. (Component members of a controlled group—enter your surtax exemption or line 12, whichever is lesser) . . . . .

14 Line 12 less line 13 . . . . .

15 22% of line 12 . . . . .

16 26% of line 14 . . . . .

17 If multiple surtax exemption is elected under section 1562, enter 6% of line 13 . .

18 Total of lines 15, 16, and 17 . . . . .

19 Enter amount from line 11 . . . . .

20 Enter long-term gain from certain binding contracts and installment sales (referred to as "subsection (d) gains"—see instructions) . . . . .

21 Line 19 less line 20 (if less than zero, enter zero) . . . . .

22 25% of the lesser of line 19 or line 20 . . . . .

23 30% of line 21 . . . . .

24 Total of lines 22 and 23 . . . . .

25 Alternative tax—total of lines 18 and 24. If applicable, enter here and on line 5, Schedule J, Form 1120, and write "ALT." in the margin to the right of the entry . . . . .

Figure 4. Capital Gains and Losses, Schedule D (Form 1120)

cash flow summary allow simpler transfer of non-farm as well as farm expenses to the tax forms. The livestock purchased for resale program allows cost accounting of items to be resold. Also the inventory table allows a numbers check on all livestock.

If these types of modifications improve the farmer's ability to make management decisions which maximize after tax income, the objectives of this chapter will be accomplished.

CHAPTER IV

THE YEAR-END ANALYSIS PROGRAM

Income and expense transactions are only part of the input data required to obtain complete financial information. Other necessary data include inventories, accounts payable and receivable, and depreciation. This chapter will elaborate on these data sources and the importance of their accuracy.

The reorganization of the year-end analysis program is designed to: (1) reduce the duplication of results, (2) improve readability of the output by reducing the amount of information on each page, (3) restructure the output so that all whole-farm analysis factors are printed together and all analysis factors applying to an individual enterprise will be printed on one or two consecutive pages.

Included in financial and production analysis is the comparison of farms on a state, geographical and area, or type of farm basis. Comparisons, whole-farm and enterprise, formats, and new output sections will be discussed in this chapter.

Input Data

The data required by the year-end analysis program comes directly or indirectly from the balance brought forward and master transaction files which are created by the periodic report program.

The master transaction file is an exact copy of each eighty character card plus ten characters for the date processed. Each data item reported is stored on this file. At the end of the farmer's fiscal year, auxiliary programs read this master file to generate card input of only those data items needed for the analysis program.

Seven types of data records are kept on the balance brought forward file; however, only three are used as input to the year-end analysis program. The first record, farm header, provides a unique identification number and the accounting basis, cash or accrual. The second record contains cash flow totals for each type of transaction for the total farm. The third data record contains income and expense totals for each individual enterprise. Both whole-farm and enterprise TI totals include the number of units, such as bushels, head or tons, and the total number of pounds and dollars.

Machinery and Labor Data

The allocation of machinery and labor costs to a specific enterprise is a necessary part of the financial enterprise analysis. According to the Machinery and Labor Input Form, Figure 5, the Costfinder system requires the reporting of the job performed, the tractor used, the size of the machine used, the acres covered, the man hours, the machine hours, and the gallons and type of fuel used.

Depreciation Cost Data

While the depreciation program is computing and printing the report of capital asset depreciation, it also computes and punches cards containing data for the year-end analysis program. One card

MACHINERY & LABOR USE REPORT

Farm No. _____
Qtr. (Year) _____
Page ____ of ____ pages

Line	Oper	Lid	Month	Day	Acct	Tran	Item	Gen	Det	Ent	Lot	Wkr. #	Job Performed	Tractor Unit No.	Tractor H.P.	Machine Size	Sz Code*	Acres Covered	Man Hours	Machine Hours	Gal. of Fuel	Type**
1																						
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						
13																						
14																						
15																						
16																						
17																						
18																						
19																						
20																						

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*1 Head
2 Bushels
3 Tons
4 Foot
5 Gallons
6 Row
7 Bottoms

**1 = Gasoline
2 = Propane
3 = Diesel Fuel
4 = Tractor Fuel
5 = Natural Gas

CF 4

Figure 5. Machinery and Labor Input Form

is punched for each type of asset for each enterprise. All depreciation for this program is taken by declining balance method from the year purchased unless the item had been depreciated out or cost data was unavailable. Machinery is depreciated at twenty percent while buildings are depreciated at ten percent. Analysis depreciation data does not include depreciation on livestock or land since these items are inventoried at the beginning of each year.

Non-Cash Transactions

Accounts payable and receivable are stored on the balance brought forward file. The Costfinder program, "Balance Due Consolidation," uses the balance brought forward file as input to provide an automatic card input of accounts payable and receivable for the analysis program.[1] Each account is listed on paper and mailed to the farmer as soon as the last data for his fiscal year has been processed. The farmer can correct possible errors in this listing and return it to the processing center. This completes the reporting of charged business and loans for the year-end analysis program.

Inventory and Other Data

Other data necessary for analysis includes inventory, births, crop reports and casualty losses. All of these items should have been reported with the monthly income and expenses at some time during the year. These and all other transactions are stored on the master

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[1]The balance due consolidation program was developed in 1966 by Ted R. Nelson, Extension Economist and programmed by Oakley Hall, student programer.

transaction file which is used as input to the Costfinder program, Analysis Strip. Analysis Strip provides card input of opening and closing inventory, births of livestock, reports of crop production, and casualty losses. Also a paper listing of these transactions is mailed to the farmer for corrections, additions, or deletions. When these procedures have been completed, the year-end analysis is ready to be processed. If adjustments are required, the internal transfer entry can be used to allocate expenses among enterprises or transfer an incorrect overhead expense to the proper enterprise. Card entries of this nature can be placed directly into the analysis program and need not be processed by the monthly report program. It is possible that the year-end analysis program will be run more than once. Since most input data is in card form, changes can be made easily.

Explanation of Output Sections That Do Not Change

A good understanding of the data sources and their effect on the year-end analysis is important to make use of information generated by this program.[2] The following will explain the whole farm sections of analysis.

Section 10, Table XIII, Analysis Transaction Journal lists all data that has been used to generate the analysis output. Division A lists the data taken from the Balance brought forward file. It includes the cash flow totals for the entire year for each TI category. The next division B, Data Taken From Input cards, lists the data cards

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[2]The year-end analysis program was initiated in 1966 by Ted R. Nelson, Extension Economist. Original programming was done by Oakley Hall, student programer. Revisions and modifications since that time were completed by Mike L. Hardin, Research Assistant.

TABLE XIII

THE YEAR-END ANALYSIS PROGRAM PRINTOUT

COMPUTERIZED-OKLA-ST-FARM-INCOME-AND-DETAILED-ENTERPRISE-RECORD-SYSTEM

SECTION 10 ANALYSIS TRANSACTION JOURNAL FARM NUMBER OK0072 1972 DATA PROCESSED 03/20/73 PAGE 1
CASH TAXPAYER FM UTL PC= FM AUTO PC= OPER LAB UNPD M= FAML LAB UNPD M= HIRED PD LAB M= 0.0 TOT ACRES= 550.0

DL	MO	DY	AC	TI	GD	EN	US	LOT	EXT	DESCRIPTION	CHECK NO	UNITS	Q	*	PRICE	POUNDS	DOLLARS
DIVISION A DATA TAKEN FROM STORAGE TAPE																	
				02						PRINCIPAL RECEIVED							25,365.55
				06						PRINCIPAL PAID OUT							24,441.68
				11						BEEF		21.00				14,422.0	5,839.62
				15						OTHER LIVESTOCK		2.00					895.00
				19						CASH CROPS						15,643.0	1,965.62
				35						PATRONAGE REFUNDS							18.75
				36						AGRI. PROGRAM PAYMENTS							1,441.09
				37						TAX REFUNDS							15.18
				41						LABOR							2,347.03
				42						REPAIRS		15.00					393.53
				43						INTEREST							3,461.54
				44						FEED						4,300.0	160.25
				45						SEEDS AND PLANTS						3,971.0	1,227.57
				46						FERTILIZER-LIME-CHEM		16.75				89,244.0	3,177.92
				47						MACHINE HIRE		658.00					3,160.26
				48						SUPPLIES		120.00				50.0	763.97
				50						MISCELLANEOUS EXPENSE		11.00					1,143.67
				51						VETERINARY-MEDICINE		4.00					270.44
				52						GAS-FUEL-OIL		1,040.90					232.39
				54						TAXES							543.12
				55						INSURANCE							235.84
				56						UTILITIES(ELEC,PHONE)							230.73
				57						FARM RENT							330.64
				58						FREIGHT-TRUCKING		585.00					258.96
				59						CONSERVATION EXPENSE							1,598.00
				61						BEEF		45.00				31,769.0	13,018.62
				71						BEEF		45.00				21,250.0	6,762.73
				81						BEEF BREEDING STOCK		13.00				13,064.0	3,486.69
				85						OTHER LIVESTOCK		3.00					1,810.00
				91						BEEF BREEDING STOCK		2.00				1,200.0	850.00
				97						MACHINERY - EQUIPMENT							850.00
1				20						RENTAL INCOME							330.64

DIVISION d DATA TAKEN FROM INPUT CARDS

DL	MO	DY	AC	TI	GD	EN	US	LOT	EXT	DESCRIPTION	CHECK NO	UNITS	Q	PRICE	POUNDS	DOLLARS
	72	1		02					1	LOAN	00000					25,581.45
	72	1		02	99				2	LAND LOAN	00000					17,850.00
	72	1		06					1	EQUITY RES	00000					1,167.00
	72	1		06					1	PCA STOCK	00000					1,965.00
	72	1		06					2	STK IN FLB	00000					1,050.00
	72	1		06					22	BOOK CRED1	00000					4.99
	72	1		06					23	L COOP 67	00000					8.08
	72	1		06					24	ATKSN STOC	00000					120.00
	72	1		06					27	BK CR BY C	00000					35.75
	72	1		06					27	STK & CASH	00000					52.60
	72	1		06	4				22	68 CAP CRE	00000					7.95
	72	1		41					93	01/01/72	00000					59.61
	72	1		46					5	01/01/72	00000				6,840.0	194.94
	72	1		54					28	01/01/72	00000					463.12
	72	1		57					26	01/01/72	00000					330.64
	72	5		10						CASH ON HAND						1,141.06
	72	5		11		1	1	00		CALVES		7.00	HD		700.0	280.00
	72	5		11	1	1	3	00		STKR STRS		15.00	HD	.38	7,500.0	2,850.00
	72	5		11	2	1	3	00		STKR HFRS		23.00	HD	.34	10,925.0	3,714.50
	72	5		15	4	5	4	00		GELDING		1.00	HD		1,000.0	250.00

TABLE XIII (Continued)

SECTION 1C ANALYSIS TRANSACTION JOURNAL FARM NUMBER [illegible]972 1972 DATA PROCESSED 03/20/73 PAGE 2

DL	ML	DY	AC	FI	GD	EN	US	LOT	EXT	DESCRIPTION	CHECK NO	UNITS	U	PRICE	POUNDS	DOLLARS
		72	5	17		7	0	00		W-B-RYE GRWNG		175.00	ACR	10.00		1,750.00
		72	5	17	6	7	C	04		WHEAT GRCWG		8.00	ACR	10.00		80.00
		72	5	18	1	0	1	00		ALF GRWG		25.00	ACR	30.00		750.00
		72	5	44	8	1	1	00		ALF HAY ON HAND		800.00	BLS	1.00	48,000.0	800.00
		72	5	90		9	5	C0		P-NUT ALLOT		7.10	ACR			710.00
		72	5	91	5	1	1	00		RSU HFRS-70		9.00	HD	160.00	6,300.0	1,440.00
		72	5	91	7	1	1	00		REG ANG BULL		1.00	HD		1,600.0	515.00
		72	5	91	8	1	1	CC		COWS		40.00	HD	160.00	36,000.0	6,400.00
		72	5	95	4	5	4	00		REG WTR MAKES		2.00	HD		2,200.0	1,000.00
		72	5	97	11	1	1	00		HAY RACKS		5.00				200.00
		72	5	98						LANDING MATS		40.00				160.00
		72	5	99						TIMBER MONT 80		20.00	ACR			1,250.00
		72	5	99		1	1	00		SANDHILL		150.00	ACR			25,000.00
		72	5	99		1	3	00		MILLER .25		152.00	ACR			19,000.00
		72	5	99		1	3	00		SCH L RIGHTS						4,000.00
		72	5	99		7	C	04		WHEAT LD 80		8.00	ACR			1,600.00
		72	5	99		8	1	00		ALFALFA		25.00	ACR			3,750.00
		72	5	99		9	5	02		PEANUTS		8.00	ACR			1,000.00
		72	5	99		9	5	04		P-NUTS-80		27.00	ACR			5,400.00
1		72	5	99						SCHOOL LAND		160.00	ACR			8,000.00
		73	1	02					1	LOAN	00000					2,475.78
		73	1	02					1	LOAN	00000					2,000.00
		73	1	02					1	LOAN	00000					1,500.00
		73	1	02					1	LOAN	00000					205.84
		73	1	02					1	LOAN	00000					2,000.00
		73	1	02					1	LOAN	00000					2,171.79
		73	1	02					1	LOAN	00000					116.00
		73	1	02					1	LSF	00000					19.29
		73	1	02					1	LOAN	00000					536.00
		73	1	02					1	LOAN & GRA	00000					1,000.00
		73	1	02					1	LOAN	00000					425.00
		73	1	02					1	LOAN	00000					900.00
		73	1	02					1	LOAN	00000					1,674.00
		73	1	02					1	LOAN	00000					548.00
		73	1	02					1	LOAN	00000					4,000.00
		73	1	02	4				1	LOAN	00000					8,867.63
		73	1	02	99				2	LAND LOAN	00000					16,800.00
		73	1	06					1	PCA STOCK	00000					1,985.00
		73	1	06					1	STK & EQTY	00000					36.00
		73	1	06					1	B STOCK	00000					50.00
		73	1	06					1	EQUITY RES	00000					1,187.00
		73	1	06					1	EQ STOCK	00000					24.00
		73	1	06					1	STK & EQ	00000					48.00
		73	1	06					1	EQ RESERVE	00000					51.00
		73	1	06					1	B STOCK	00000					65.00
		73	1	06					2	STK IN FLB	00000					1,050.00
		73	1	06					22	BOOK CREDI	00000					4.99
		73	1	06					23	L COOP 67	00000					8.08
		73	1	06					23	CAP CREDIT	00000					10.01
		73	1	06					24	ATKSN STOC	00000					120.00
		73	1	06					27	OR CR BY C	00000					35.75
		73	1	06					27	STK & CASH	00000					52.60
		73	1	06	4				22	68 CAP CRE	00000					7.95
		73	1	41					93	01/01/73	00000					155.07
		73	1	54					66	01/01/73	00000	15.00				480.20
		73	1	57					67	01/01/73	00000					330.64
		73	5	10						CASH ON HAND						561.40
		73	5	11		1	1	00		CAL ON COWS		5.00	HD		500.0	200.00

TABLE XIII (Continued)

SECTION 10 ANALYSIS TRANSACTION JOURNAL FARM NUMBER [illegible] 1972 DATA PROCESSED 03/20/73 PAGE 3

OL	MO	DY	AC	TI	CO	EN	US	LOT	EXT	DESCRIPTION	CHECK NO	UNITS	U	PRICE	POUNDS	DOLLARS
		73	5	11	1	1	3	00		STOCKER STRS		29.00	HD		9,400.0	4,88d.00
		73	5	11	5	1	3	00		STUCKERS HERS		18.00	HD		7,560.0	3,477.60
		73	5	15	4	5	4	00		GELDING		1.00	HD		1,000.0	250.00
		73	5	17		7	0	10		SM GR GROW		99.00	ACR	10.00		990.00
		73	5	17		7	0	20		SM GR GROW		47.00	ACR	10.00		470.00
		73	5	17		7	C	30		SM GR GRCW		49.00	ACR	10.00		490.00
		73	5	17	6	7	C	40		WHT GROWING		8.00	ACR	10.00		80.00
		73	5	18	1	8	1	00		ALF HAY ON HAND		318.00	BLS		19,080.0	318.00
		73	5	18	1	8	1	40		ALF GROWING		25.00	ACR	20.00		500.00
		73	5	90		9	5	00		P-NUT ALLOT						710.00
		73	5	91	5	1	1	00		HERS RSD		17.00	HD	160.00	11,900.0	2,720.00
		73	5	91	7	1	1	00		BULLS		2.00	HD		2,800.0	875.00
		73	5	91	8	1	1	00		COWS		36.00	HD	160.00	32,400.0	5,760.00
		73	5	97	11	1	1	00		HAY RACKS		5.00				200.00
		73	5	98						LANDING MATS		40.00				160.00
		73	5	99						TIMBER MONT		20.00	AGR			1,250.00
		73	5	99		1	1	00		SAND HILL		150.00	ACR			25,000.00
		73	5	99		1	1	20		MILLER COWS		50.00	ACR	134.21		6,710.58
		73	5	99		1	3	20		MILLER STRS		102.00	ACR	134.21		13,689.42
		73	5	99		1	3	00		SCHOOL LAND						4,500.00
		73	5	99		7	0	40		WHT LAND		8.00	ACR			1,600.00
		73	5	99		8	1	00		ALF LAND		25.00	ACR			3,750.00
		73	5	99		9	5	20		P-NUT LAND		8.00	ACR			1,600.00
		73	5	99		9	5	40		P-NUT LAND		27.00	ACR			5,400.00
1		73	5	99						LL LNAD		160.00	ACR			8,000.00
	12	31	4	18						CORK FORAGE IN GH						3,680.10
	1	14	7	11		1	1	00		66CALVED		1.00	HD		60.0	.00
	2	14	7	11		1	1	00		7 CALVED		1.00	HD		60.0	.00
	3	31	7	11		1	1	00		4 BAR & 4 CALVE		2.00	HD		120.0	.00
	4	6	7	11		1	1	00		74-78-40-43-4		5.00	HD		300.0	.00
	4	14	7	11		1	1	00		617-35-1-611		4.00	HD		240.0	.00
	4	14	7	11		1	1	00		46-71-72-5-8		5.00	HD		300.0	.00
	4	21	7	11		1	1	00		49-81-2-45-42		5.00	HD		300.0	.00
	4	28	7	11		1	1	00		91-6 CALVED		2.00	HD		120.0	.00
	5	15	7	11		1	1	00		64-68 CALVED		2.00	HD		120.0	.00
	5	20	7	11		1	1	00		48 CALVED		1.00	HD		60.0	.00
	5	20	7	11		1	1	00		69-9-13-3 CALV		4.00	HD		240.0	.00
	6	2	7	11		1	1	00		YALG HFR CLV		1.00	HD		60.0	.00
	6	8	7	11		1	1	00		BL 9 CALVED		1.00	HD		60.0	.00
	6	12	7	11		1	1	00		3 CALVED		1.00	HD		60.0	.00
	6	20	7	11		1	1	00		15 HFR CALVED		1.00	HD		60.0	.00
	9	27	7	11		1	1	00		REG 6 CLVS		1.00	HD		60.0	.00
	11	3	7	11		1	1	00		41 CALVED		1.00	HD		60.0	.00
	11	15	7	11		1	1	00		REG 9-60 CALV		2.00	HD		120.0	.00
	12	18	7	11	1	1	1	00		66 CUR CALVED		1.00	HD		70.0	.00
	11	25	8	11		1	1	00		WEANED CALVES		38.00	HD		15,200.0	6,384.00
	12	31	8	11		1	1	00	1	ADD PRICE TO CAL				.08		1,216.00
	6	27	6	17	6	7	C	00		HARVEST WHEAT	00060	208.00	BSL	1.50	12,480.0	312.00
	12	31	8	18		1	1	20		HARV BERM	01020					.00
	12	31	8	18		1	1	00		HARV BERM	00750					.00
	12	31	8	18	8					WASTE & RDS	00200					.00
	12	31	8	18	8			40		WASTE & RDS	01100					.00
	6	9	8	18	1	8	1	00		HARVEST HAY	00250	585.00	BLS		35,100.0	585.00
	7	19	8	18	11	8	1	00		HARVEST HAY	00120	73.00	BLS		4,380.0	73.00
	6	30	8	18	9	7	0	00		HARV SM GR PAST	01700			17.53		3,080.10
	6	30	8	18	9	7	0	80		HARV SM GR	00950					.00
	12	4	8	19	5	9	5	00		HARV PEANUTS	00350				17,220.0	1,965.62
	4	21	9	11		1	1	00		6*S CALF DIED		1.00	HD		65.0	.00

TABLE XIII (Continued)

SECTION 10 ANALYSIS TRANSACTION JOURNAL FARM NUMBER CK0072 1972 DATA PROCESSED 03/20/73 PAGE 4

DL	MO	DY	AC	TI	GO	EN	US	LOT	EXT	DESCRIPTION	CHECK NO	UNITS	Q	PRICE	POUNDS	DOLLARS
	5	8	9	11		1	1	00		45-5 CALF DIED		1.00	HD		60.0	.00
	5	15	9	11		1	1	00		64 CALF DIED		1.00	HD		60.0	.00
	6	2	9	11		1	1	00		HFRS CALF DIED		1.00	HD		60.0	.00
	6	20	9	11		1	1	00		15 CALF DIED		1.00	HD		60.0	.00
	9	1	9	61	B	1	1	00		617 COW DIED	P0209	1.00	HD		700.0	.00
	12	31	4	42		1	1	00		TRANS FR OH						100.00
	12	31	4	42		1	3	00		TRANS FR OH						100.00
	12	31	4	42		8	1	00		TRANS FR OH						40.00
	12	31	4	42		9	5	00		TRANS FR OH						93.09
	12	31	4	48		1	1	00		TRANS FR OH						300.00
	12	31	4	48		1	3	00		TRANS FR OH						140.00
	12	31	4	48		7	0	00		TRANS FR OH						100.00
	12	31	4	48		8	1	00		TRANS FR OH						90.00
	12	31	4	48		9	5	00		TRANS FR OH						130.53
	12	31	4	50		1	1	00		TRANS FR OH						400.00
	12	31	4	50		1	3	00		TRANS FR OH						150.00
	12	31	4	50		7	0	00		TRANS FR OH						175.00
	12	31	4	50		8	1	00		TRANS FR OH						50.00
	12	31	4	50		9	5	00		TRANS FR OH						100.00
	12	31	4	54		7	0	00		TRANS FR OH						75.00
	12	31	4	54		8	1	00		TRANS FR OH						22.00
	12	31	4	54		9	5	00		TRANS FR OH						22.20
	12	31	4	55		7	0	00		TRANS FR OH						115.84
	12	31	4	55		8	1	00		TRANS FR OH						50.00
	12	31	4	55		9	5	00		TRANS FR OH						70.00
	12	31	4	56		7	0	00		TRANS FR OH						23.31
	12	31	4	56		8	1	00		TRANS FR OH						10.00
	12	31	4	56		9	5	00		TRANS FR OH						25.00

DIVISION C DETAIL OF MACHINERY AND LABOR USE REPORT

DL	MO	DY	AC	TI	GO	EN	US	LOT	WN	JOB PERFORMED	NUM TRA	HP	SIZE	CD	ACRES	MAN HRS	MACH HR	GAL FUEL	TYPE
	1	31	7	20	00					HLDG PEN-FENCE						15.00			
	1	31	7	20	00	1	1	00		CK & FEED COWS						80.00			
	1	31	7	20	00	1	3	00		CK & FEED STKRS						40.00			
	2	28	7	20	00	1	1	00		CK & FEED COWS						80.00			
	2	28	7	20	00	1	3	00		CK & FEED STKRS						40.00			
	3	11	7	96	24	1	3	00		SPRD FERT						4.00	3.00	8.00	3
	3	11	7	96	24	3	1	00		SPRD FERT						4.00	3.00	9.00	3
	3	11	7	96	24	1	1	00		SPRD FERT						8.00	5.00	15.00	3
	3	11	7	96	23	7	C	00		SPRD FERT						3.00	2.00	6.00	1
	3	11	7	97	34					PICKUP BRUSH	3					14.00	3.00	6.00	1
	3	31	7	97	43					DISC BRUSH LD	3		10	4	30	10.00	10.00	30.00	1
	3	31	7	97	34					PICK UP BRUSH	3					30.00	20.00	20.00	1
	3	31	7	20	00	1	1	00		CK CATTLE						30.00			
	3	31	7	20	00	1	3	00		CK CATTLE						20.00			
	4	08	7	97	43	9	5	00		DISC	3		10	4	8	5.00	5.00	20.00	1
	4	08	7	88	00	7	0	00		BUILD FENCE						5.00			
	4	14	7	88	00	7	0	00		BUILD FENCE						5.00			
	4	21	7	97	43	8	7	00		DISC SUDAN LD	4		10	4	24	8.00	6.00	15.00	3
	4	21	7	97	51	8	7	00		DRILL SUDAN			10	4	24		6.00		
	4	28	7	97	60	1	3	00		SPD FERT	4				100	6.00	5.00	15.00	3
	4	30	7	20	00	1	3	00		CHK CATTLE						20.00			
	4	30	7	20	00	1	1	00		CHK CATTLE						30.00			
	5	21	7	20	00	1	1	00		CHK CATTLE						30.00			
	5	31	7	20	00	1	3	00		CHK CATTLE						15.00			
	6	30	7	20	00	1	1	00		CHECK CATTLE						15.00			
	6	30	7	20	00	1	3	00		CHECK COWS						15.00			
	6	23	7	20	00	1	1	00		WK & CHK CATTLE						6.00			

TABLE XIII (Continued)

SECTION 10 ANALYSIS TRANSACTION JOURNAL — FARM NUMBER [illegible] — 1972 DATA PROCESSED 03/20/73 — PAGE 5

OL	MO	DY	AC	TI	SD	ENT	USE	LOT	WN	JOB PERFORMED	NUM	TRA	HP	SIZE	CD	ACRES	MAN HRS	MACH HR	GAL FUEL	TYPE
6	29	7	20	00	1	3	00			SELL CATTLE							8.00			
6	25	7	20	00	1	1	00			SELL COWS							3.00			
7	08	7	20	00	1	1	00			WK CATTLE							6.00			
7	30	7	20	00						CHECK COWS							20.00			
7	21	7	20	00	9	5	00			CHOP PEANUTS							18.00			
7	27	7	20	00	9	5	00			CHOP PEANUTS							21.00			
8	05	7	20	00	9	5	00			CHOP PEANUTS							18.00			
8	12	7	20	00	9	5	00			CHOP PEANUTS							18.00			
9	08	7	20	00	7	0	00			MOVE & SHC EQ							3.00			
9	30	7	20	00						CHECK COWS							20.00			
11	30	7	20	00	1	3	00			FEED CALVES							8.00			
11	30	7	20	00	1	1	00			FEED & CK COWS							20.00			
12	26	7	87	38						WK ON POSTHOLE							4.00			
9	04	7	87	43	7	0	00			DISC & DRILL							12.00			
9	08	7	87	51	7	0	00			DRILL REPR							12.00			
6	13	7	87	57	9	5	00			RIG CULTI							6.00			
10	14	7	87	76	9	5	00			CHK DIG-SHKER							8.00			
10	14	7	87	84	9	5	00			CHK & BUY & REPR							4.00			
4	28	7	88	09	7	0	00			BLD FENCE							8.00			
12	30	7	90	00	1	3	00			FEED STARS							15.00			
12	30	7	96	20	1	1	00			FEED COWS							15.00	30.00		
4	26	7	96	30	1	1	00			SPRD FERT	4					80	6.00	4.00	15.00	3
4	28	7	96	30						SPRD FERT	4					15	4.00	3.00	10.00	3
5	10	7	96	33						SPREAD FERT	3					30	4.00	3.00	10.00	1
5	10	7	96	33	9	5	00			FERT	3					8	1.00	1.00	3.00	1
12	30	7	97	11						USE HAY FEEDERS								10.00		
12	30	7	97	13						USE HAY FEEDERS								5.00		
12	30	7	97	27	1	1	00			CALF TABLE								8.00		
5	21	7	97	34	9	5	00			HAUL SEED	2						3.00	3.00	10.00	1
6	23	7	97	34	1	1	00			MOVE CHAR BULL							2.00	2.00		
6	03	7	97	34	1	1	00			HAUL ANGUS BULL							2.00	1.00		
9	06	7	97	34	1	1	00			MOVE COWS							4.00			
12	15	7	97	34	1	1	00			MOVE 71 MARS					3		8.00	4.00		
12	29	7	97	38	1	1	00			DIG POSTHOLE							8.00	1.00	3.00	3
5	12	7	97	41	9	5	00			MOLDBOARD	4		4	4		35	21.00	18.00	72.00	3
9	28	7	97	41	7	0	00			MOLDBOARD 80	4		4	4		8	6.00	6.00	25.00	3
5	12	7	97	43	9	5	00			DISC	4		10	4		35	17.00	15.00	45.00	3
5	20	7	97	43	9	5	00			DISC	4		10	4		35	17.00	14.00	45.00	3
5	20	7	97	43	9	5	00			DISC	4		10	4		8	4.00	3.00	10.00	3
5	21	7	97	43	9	5	00			DISC	3		10	4		27	9.00	9.00	25.00	1
7	26	7	97	43	7	0	00			DISK	4		10	4		8	3.00	3.00	12.00	3
6	06	7	97	43	7	0	00			DISC HH LD	4		10	4		8	3.00	3.00	10.00	3
10	23	7	97	43	7	0	00			DISC	3		10	4			5.00	4.00	15.00	1
10	26	7	97	43	7	0	02			DISC	2		10	4		20	18.00	15.00	40.00	1
10	26	7	97	43	7	0	02			DISC	3		10	4		27	18.00	15.00	40.00	1
10	28	7	97	43	7	0	03			SL DISC	4		10	4		30	12.00	10.00	20.00	3
10	26	7	97	43	7	0	01			DISC	4		10	4		16	6.00	5.00	15.00	3
10	28	7	97	43	7	0	03			DISC	3		10	4		29	12.00	10.00	30.00	1
10	26	7	97	43	7	0	01			DISC	3		10	4		10	6.00	5.00	15.00	1
12	02	7	97	43	7	0	00			DISC	3		10	4		8	7.00	7.00	20.00	1
10	23	7	97	51	7	0	00			DRILL #1			10	4				4.00		
10	26	7	97	51	7	0	02			DRILL #2			9	4		20		15.00		
10	26	7	97	51	7	0	02			DRILL #1			10	4		27		15.00		
10	28	7	97	51	7	0	03			DRILL #1			10	4		30		10.00		
10	28	7	97	51	7	0	01			DRILL #1			10	4		16		5.00		
10	28	7	97	51	7	0	03			DRILL #2			10	4		29		10.00		
10	28	7	97	51	7	0	01			DRILL #2			10	4		10		5.00		
12	30	7	97	51	9	5	00			PLANT RYE SEED	4		10	4			0.00	5.00	15.00	3

TABLE XIII (Continued)

SECTION 10 ANALYSIS TRANSACTION JOURNAL — FARM NUMBER [illegible] — 1972 DATA PROCESSED 03/20/73 — PAGE 6

DL	MO	DY	AC	TI	GD	ENT	USE	LOT	JOB PERFORMED	NUM	TRA	HP	SIZE	CD	ACRES	MAN HRS	MACH HR	GAL FUEL	TYPE
	12	02	7	97	51	7	0	00	DRILL WHT	4			10	4	8	4.00	2.00	4.00	3
	12	02	7	97	51	9	5	00	DRILL WHT	4			10	4	8	2.00	2.00	4.00	3
	5	20	7	97	52	9	5	00	PLANT PEANUTS	4			2	6	35	26.00	24.00	40.00	3
	6	30	7	97	57	9	5	00	CULTI PEANUTS	4			2	6	35	22.00	20.00	40.00	3
	5	20	7	97	60	9	5	00	SPRAY TREFLAN	2			10	4	35	17.00	14.00	40.00	1
	10	20	7	97	76	9	5	04	//DIG PEANUTS	4			2	6	9	7.00	6.00	10.00	3
	10	25	7	97	76	9	5	04	DIG PEANUTS	4			2	6	6	5.00	4.00	10.00	3
	11	28	7	97	76	9	5	00	DIG PEANUTS	4			2	6	20	20.00	18.00	35.00	3
	11	30	7	97	76	9	5	00	SHAKE P-NUTS	4			2	6	25	12.00	10.00	15.00	3
	8	11	7	97	82	1	1	00	SHRED PAST	4			5	4		8.00	8.00	25.00	3
	9	30	7	97	82				ROTARY MOWER	4			5	4	10	5.00	5.00	15.00	3
	12	30	7	97	83	1	3	00	SL BARN								50.00		
	10	20	7	97	84	9	5	04	RAKE PEANUTS	3			8	4	9	4.00	3.00	6.00	1
	10	25	7	97	84	9	5	04	RAKE PEANUTS	3			8	4	6	4.00	3.00	5.00	1
	11	30	7	97	84	9	5	00	RAKE P-NUT	3			10	4	20	12.00	10.00	25.00	1
	12	30	7	97	85	1	3	00	SL WATER SY								50.00		
	12	30	7	97	86	1	3	20	SL FENCES								50.00		
	12	30	7	97	86	1	1	00	PORTABLE CURRAL								50.00		
	12	30	7	97	86	1	3	00	PORTABLE CORRAL								10.00		

DIVISION D ANALYSIS DEPRECIATION

	A	T	IG	E	U	LOT	ORIGINAL COST	BEGINNING VALUE	1972 DEPREC	ENDING VALUE	ORIGINAL COST	BEGINNING VALUE	1972 DEPREC	ENDING VALUE
	6	9	63				2,597	1,020	204	816				
	6	9	71	1	1	00		25	5	20				
	6	9	72				798	279	55	223				
	6	9	73					19	3	15				
	6	9	73	1	1	00	325	111	22	89				
	6	9	74				945	474	94	379				
	6	9	75				1,130	847	169	677				
	6	9	75	9	5	00	200	9	21	137				
	6	9	76				315	160	32	128				
	6	9	77				100	72	14	57				
	6	9	77	9	5	00	200		26	173				
	6	9	78				500		41	458				
	6	9	81					106	10	95				
	6	9	83				2,000	1,180	118	1,062				
	6	9	85				762	470	47	423				
	6	9	86				900	531	53	478				
	6	9	86	1	3	00	318	242	24	218				
	6	9	87				504	355	35	319				
ANALYSIS OF DEPRECIATION-MACHINERY							7,110	3,017	686	3,172				
ANALYSIS OF DEPRECIATION-BUILDINGS							4,484	2,884	287	2,595				

TABLE XIII (Continued)

COSTFINDER WHOLE FARM ANALYSIS

SECTION 11 TABLE OF INCOME AND EXPENSES — FARM NUMBER CX0072 — DATE PROCESSED 03/20/73 — PAGE 7

T1	DESCRIPTION	SUBFARM 00 UNITS	SUBFARM 00 POUNDS	SUBFARM 00 DOLLARS	ALL OTHER SUBFARMS UNITS	ALL OTHER SUBFARMS POUNDS	ALL OTHER SUBFARMS DOLLARS	TOTAL FARM UNITS	TOTAL FARM POUNDS	TOTAL FARM DOLLARS
RAISED SALES										
11	BEEF	21.0	14422.0	5,839.62				21.0	14422.0	5,839.62
15	OTHER LIVESTOCK	2.0		895.00				2.0		895.00
19	CASH CROPS		15643.0	1,965.62					15643.0	1,965.62
	TOTAL RAISED SALES			$8,700.24			$0.00			$8,700.24
PRODUCT SALES										
20	RENTAL INCOME						330.64			330.64
	TOTAL PRODUCT SALES			$0.00			$330.64			$330.64
ADDITIONAL FARM INCOME										
35	PATRONAGE REFUNDS			18.75						18.75
36	AGRI. PROGRAM PAYMENTS			1,441.09						1,441.09
37	TAX REFUNDS			15.18						15.18
	TOTAL ADDITIONAL FARM INCOME			$1,475.02			$0.00			$1,475.02
SALE OF PURCHASES FOR RESALE										
61	BEEF	45.0	31769.0	13,018.62				45.0	31769.0	13,018.62
	TOTAL SALE OF PURCHASES FOR RESALE			$13,018.62			$0.00			$13,018.62
SALE OF CAPITAL ASSETS										
61	BEEF BREEDING STOCK	13.0	13064.0	3,486.69				13.0	13064.0	3,486.69
65	OTHER LIVESTOCK	3.0		1,810.00				3.0		1,810.00
	TOTAL SALE OF CAPITAL ASSETS			$5,296.69			$0.00			$5,296.69
	TOTAL GROSS FARM INCOME			$28,490.57			$330.64			$28,821.21
CURRENT FARM EXPENSES										
41	LABOR			42.49						42.49
42	REPAIRS	15.0		393.53				15.0		393.53
43	INTEREST			3,461.54						3,461.54
44	FEED		4300.0	160.25					4300.0	160.25
45	SEEDS AND PLANTS		3971.0	1,227.57					3971.0	1,227.57
46	FERTILIZER-LIME-CHEM	16.7	82404.0	2,982.98				16.7	82404.0	2,982.98
47	MACHINE HIRE	658.0		3,160.26				658.0		3,160.26
48	SUPPLIES	120.0	50.0	763.97				120.0	50.0	763.97
50	MISCELLANEOUS EXPENSE	11.0		1,143.67				11.0		1,143.67
51	VETERINARY-MEDICINE	4.0		270.44				4.0		270.44
52	GAS-FUEL-OIL	1040.9		232.39				1040.9		232.39
54	TAXES	15.0		560.20				15.0		560.20
55	INSURANCE			235.84						235.84
56	UTILITIES(ELEC,PHONE)			230.73						230.73
57	FARM RENT			330.64						330.64
58	FREIGHT-TRUCKING	585.0		258.96				585.0		258.96
59	CONSERVATION EXPENSE			1,598.00						1,598.00
	TOTAL CURRENT FARM EXPENSES			$17,053.46			$0.00			$17,053.46
PURCHASE OF PURCH FOR RESALE										
71	BEEF	45.0	21250.0	8,762.73				45.0	21250.0	8,762.73
	TOTAL PURCHASE OF PURCH FOR RESALE			$8,762.73			$0.00			$8,762.73
PURCHASE OF CAPITAL ASSETS										
51	BEEF BREEDING STOCK	2.0	1200.0	850.00				2.0	1200.0	850.00
57	MACHINERY - EQUIPMENT			850.00						850.00
	TOTAL PURCHASE OF CAPITAL ASSETS			$1,700.00			$0.00			$1,700.00
	TOTAL FARM EXPENSE			$27,516.19			$0.00			$27,516.19
	TOTAL FM CASH EARN ADJ FOR AP, AR			$1,425.62-			$330.64			$1,094.98-

TABLE XIII (Continued)

SECTION 13 VALUE OF NET LIVESTOCK PRODUCTION — FARM NUMBER [illegible] — DATE PROCESSED 03/20/73 — PAGE 9

		SUBFARM 00			ALL OTHER SUBFARMS			TOTAL FARM		
		UNITS	POUNDS	DOLLARS	UNITS	POUNDS	DOLLARS	UNITS	POUNDS	DOLLARS
BEEF	OPENING INVENTORY	95.0	63025.0	15199.50				95.0	63025.0	15199.50
	PURCHASES	47.0	22450.0	9612.73				47.0	22450.0	9612.73
	SALES	79.0	59255.0	22344.93				79.0	59255.0	22344.93
	CLOSING INVENTORY	98.0	64560.0	17920.60				98.0	64560.0	17920.60
	PRODUCTION	35.0	38340.0	15453.30				35.0	38340.0	15453.30
OTH LIVSTK	OPENING INVENTORY	3.0	3200.0	1250.00				3.0	3200.0	1250.00
	PURCHASES									
	SALES	5.0		2705.00				5.0		2705.00
	CLOSING INVENTORY	1.0	1000.0	250.00				1.0	1000.0	250.00
	PRODUCTION	3.0	2200.0-	1705.00				3.0	2200.0-	1705.00
TOTAL LIVESTOCK PRODUCTION		38.0	36140.0	17158.30				38.0	36140.0	17158.30
FEED	OPENING INVENTORY	1008.0	48000.0	3380.00				1008.0	48000.0	3380.00
	PURCHASES		4300.0	160.25					4300.0	160.25
	SALES									
	CLOSING INVENTORY	546.0	19080.0	2848.00				546.0	19080.0	2848.00
	PRODUCTION	866.0	51960.0	4050.10				866.0	51960.0	4050.10
	FEED DISAPPEARANCE	1328.0	85180.0	4742.35				1328.0	85180.0	4742.35
LIVESTOCK PROD / $100 FEED DIS				361.83						361.83

SECTION 14 LAND USE SUMMARY — FARM NUMBER [illegible] — DATE PROCESSED 03/20/73 — PAGE 10

	UNITS/ACRE	LBS/ACRE	ACRES	UNITS	POUNDS	SUBFARM 00 $	OTHER SUBFM $	TOTAL FARM $
IRRIGATED CROPS ACREAGE BY CROP								
TOTAL ACREAGE AND VALUE OF IRRG CROPS								
NON-IRRIGATED CROPS ACREAGE BY CROP								
WHEAT	26.0	1560.0	8.0	208	12,480	312.00		312.00
ALFALFA	26.3	1579.2	25.0	658	39,480	658.00		658.00
CROP PASTURE			175.0			3,080.10		3,080.10
OTHER HAY AND FORAGE			177.0					
PEANUTS		492.0	35.0		17,220	1,965.62		1,965.62
TOTAL ACREAGE AND VALUE OF NON-IRRG CROPS			420.0			6,015.72		6,015.72
OTHER LAND USE								
TREES AND WASTE			130.0					
TOTAL ACREAGE AND VALUE OF OTHER LAND USE			130.0					
TOTAL ACREAGE AND VALUE OF ALL LAND USE			550.0			6,015.72		6,015.72
LESS TOT ACRES (OPEN INV + PURCHASES)			550.0					
YIELDS ACREAGE UNACCOUNTED FOR								

SECTION 15 ANALYSIS FACTORS — FARM NUMBER [illegible] — DATE PROCESSED 03/20/73 — PAGE 10

DESCRIPTION	TOTAL FARM AMOUNT	/ CROP ACRE (420)	/ FARM ACRE (550)	/ MAN YEAR (0.50 YEARS)	/ $100 INVST ($1,106)	/ $100 PROD ($231)
GROSS FARM PRODUCTION	$23,174.02	$55.17	$42.13	$46,348.04	$20.94	$100.00
MACHINERY INVESTMENT	$3,094.50	$7.36	$5.62	$6,189.00	$2.79	$13.35
MACHINERY COST	$4,963.52	$11.81	$9.02	$9,927.04	$4.48	$21.41
FERTILIZER & CHEMICAL COST	$2,982.96	$7.10	$5.42	$5,965.96	$2.69	$12.87
SEED AND PLANT EXPENSE	$1,227.57	$2.92	$2.23	$2,455.14	$1.10	$5.29
FARM SIZE INDEX	$7,975.20	$18.98	$14.50	$15,950.40	$7.20	$34.41

TABLE XIII (Continued)

SECTION 16 MACHINERY SECTION — FARM NUMBER [illegible] — DATE PROCESSED 03/20/73 — PAGE 11

DESCRIPTION	ENTERPRISE NO 1100 ENDING VALUE	1100 DEPREC AMOUNT	ENTERPRISE NO 1300 ENDING VALUE	1300 DEPREC AMOUNT	ENTERPRISE NO 7000 ENDING VALUE	7000 DEPREC AMOUNT	ENTERPRISE NO 8100 ENDING VALUE	8100 DEPREC AMOUNT	ENTERPRISE NO 9500 ENDING VALUE	9500 DEPREC AMOUNT	OVERHEAD ENDING VALUE	OVERHEAD DEPREC AMOUNT	TOTALS ENDING VALUE	TOTALS TOTAL AMOUNT
PICKUPS AND TRUCKS														
ALYS DEPREC														
HOURS USED		35.00		3.00		2.00		3.00						43.00
DEPREC ALLOCATED														
TRACTORS														
ALYS DEPREC											816	204.00	816	204.00
HOURS USED		62.00		165.00		149.00				187.00		56.00		619.00
DEPREC ALLOCATED		20.43		54.38		49.10				61.63		18.46		204.00
LIVESTOCK FEED EQUIP														
ALYS DEPREC	20	5.00											20	5.00
HOURS USED												15.00		15.00
DEPREC ALLOCATED												5.00		5.00
OTHER LIVESTOCK EQUIP														
ALYS DEPREC											223	55.00	223	55.00
HOURS USED		8.00												8.00
DEPREC ALLOCATED		55.00												55.00
MATERIAL HNDL EQPT														
ALYS DEPREC	89	22.00									15	3.00	104	25.00
HOURS USED		6.00								3.00		23.00		34.00
DEPREC ALLOCATED		5.88								2.21		16.91		25.00
TILLAGE MACHINERY														
ALYS DEPREC											379	94.00	379	94.00
HOURS USED						83.00				64.00		16.00		163.00
DEPREC ALLOCATED						47.86				36.91		9.23		94.00
PLANTING, CULTIVATING														
ALYS DEPREC									137	21.00	677	169.00	814	190.00
HOURS USED						66.00				51.00		6.00		123.00
DEPREC ALLOCATED						101.95				78.78		9.27		190.00
IRRIGATION, CHEM APPL														
ALYS DEPREC											128	32.00	128	32.00
HOURS USED				5.00						14.00				19.00
DEPREC ALLOCATED				8.42						23.58				32.00
HARVESTING EQUIP														
ALYS DEPREC									173	26.00	57	14.00	230	40.00
HOURS USED										38.00				38.00
DEPREC ALLOCATED										40.00				40.00
HAYING EQUIPMENT														
ALYS DEPREC											458	41.00	458	41.00
HOURS USED		58.00		160.00						16.00		5.00		239.00
DEPREC ALLOCATED		9.95		27.45						2.74		.86		41.00
MISCELLANEOUS														
ALYS DEPREC														
HOURS USED														
DEPREC ALLOCATED														
BUILDINGS														
ALYS DEPREC			218	24.00							2377	263.00	2595	287.00
HOURS USED														
DEPREC ALLOCATED				24.00								263.00		287.00
ENTERPRISE TOTALS														
ALYS DEPREC	109	27.00	218	24.00					310	47.00	5130	875.00	5767	973.00
HOURS USED		171.00		333.00		300.00		3.00		373.00		121.00		1301.00
DEPREC ALLOCATED		91.26		114.25		198.91				245.85		322.73		973.00
MACHINERY OPEN INV		137.00								9.00		2871.00		3017.00
CLOSE INV		109.00								319.00		2753.00		3172.00
BUILDINGS OPEN INV				242.00								2642.00		2884.00
CLOSE INV				218.00								2377.00		2595.00

TABLE XIII (Continued)

SECTION 17 LABOR SECTION — FARM NUMBER [illegible] — DATE PROCESSED 03/20/73 — PAGE 12

LABOR USED OPERATING	ENTERPRISE NO 1100 HOURS	COST	ENTERPRISE NO 1300 HOURS	COST	ENTERPRISE NO 7000 HOURS	COST	ENTERPRISE NO 8100 HOURS	COST	ENTERPRISE NO 9500 HOURS	COST	OVERHEAD HOURS	COST	TOTALS HOURS	COST
PICKUPS AND TRUCKS	23.0	34.50	4.0	6.00	3.0	4.50	4.0	6.00					34.0	51.00
TRACTORS	6.0	9.00							1.0	1.50	8.0	12.00	15.0	22.50
LIVESTOCK FEED EQUI														
OTHER LIVESTOCK EQU														
MATERIAL HNDL EQPT	24.0	36.00							3.0	4.50	48.0	72.00	75.0	112.50
TILLAGE MACHINERY					108.0	162.00			73.0	109.50	18.0	27.00	199.0	298.50
PLANTING, CULTIVATI					16.0	24.00			62.0	93.00			78.0	117.00
IRRIGATION, CHEM AP			6.0	9.00					17.0	25.50			23.0	34.50
HARVESTING EQUIP									52.0	78.00			52.0	78.00
HAYING EQUIPMENT	8.0	12.00							24.0	36.00	5.0	7.50	37.0	55.50
MISCELLANEOUS	300.0	450.00	181.0	271.50	3.0	4.50			75.0	112.50	55.0	82.50	614.0	921.00
BUILDINGS					18.0	27.00							18.0	27.00
ENTERPRISE TOTALS	361.0	541.50	191.0	286.50	148.0	222.00	4.0	6.00	307.0	460.50	134.0	201.00	1145.0	1717.50

SECTION 18 FUEL SECTION — FARM NUMBER [illegible]0672 — DATE PROCESSED 03/20/73 — PAGE 12

FUEL USED BY		ENTERPRISE NO 1100 GALLONS	COST	ENTERPRISE NO 1300 GALLONS	COST	ENTERPRISE NO 7000 GALLONS	COST	ENTERPRISE NO 8100 GALLONS	COST	ENTERPRISE NO 9500 GALLONS	COST	OVERHEAD GALLONS	COST	TOTALS GALLONS	COST
PICKUPS AND TRUCK	G					6.0	1.44							6.0	1.44
	D	15.0	1.65	8.0	1.04			9.0	1.17					32.0	4.16
TRACTORS	G									3.0	.72	10.0	2.40	13.0	3.12
	D	15.0	1.95									10.0	1.30	25.0	3.25
MATERIAL HNDL EQP	G									10.0	2.40	26.0	6.24	36.0	8.64
	D	3.0	.39											3.0	.39
TILLAGE MACHINERY	G					160.0	38.40			45.0	10.80	30.0	7.20	235.0	56.40
	D					82.0	10.66			172.0	22.36	15.0	1.95	269.0	34.97
PLANTING, CULTIVA	D					4.0	.52			99.0	12.87			103.0	13.39
IRRIGATION, CHEM	G									40.0	9.60			40.0	9.60
	D			15.0	1.95									15.0	1.95
HARVESTING EQUIP	D									70.0	9.10			70.0	9.10
HAYING EQUIPMENT	G									36.0	8.64			36.0	8.64
	D	25.0	3.25									15.0	1.95	40.0	5.20
ENTERPRISE TOTALS	G					166.0	39.84			134.0	32.16	66.0	15.84	366.0	87.84
	D	58.0	7.54	23.0	2.99	86.0	11.18	9.0	1.17	341.0	44.33	40.0	5.20	557.0	72.41
TOTAL FUEL COST			7.54		2.99		51.02		1.17		76.49		21.04		160.25

* G=GASOLINE AT $.24, P=PROPANE AT $.10, D=DIESEL FUEL AT $.13, T= TRACTOR FUEL AT $.20, N=NATURAL GAS AT $.35/1000

TABLE XIII (Continued)

SECTION 19 INVENTORY ANALYSIS — FARM NUMBER GK0072 — DATE PROCESSED 03/20/73 — PAGE 13

TI	DESCRIPTION	-----ENTERPRISE NO. 1100----- UNITS	POUNDS	DOLLARS	*****ENTERPRISE NO. 1300***** UNITS	POUNDS	DOLLARS	-----ENTERPRISE NO. 7000----- UNITS	POUNDS	DOLLARS
OPENING INVENTORY OF										
11	BEEF	7.0	700.0	280.00	38.0	18,425.0	6,564.50			
17	GRAIN							183.0		1,830.00
44	FEED	800.0	48,000.0	800.00						
91	BEEF BREEDING STOCK	50.0	43,900.0	8,355.00						
	TOTAL OPENING OPERATING INVENTORY			$9,435.00			$6,564.50			$1,830.00
CLOSING INVENTORY OF										
11	BEEF	5.0	500.0	200.00	38.0	16,960.0	8,365.60			
17	GRAIN							203.0		2,030.00
44	FEED									
91	BEEF BREEDING STOCK	55.0	47,100.0	9,355.00						
	TOTAL CLOSING OPERATING INVENTORY			$9,555.00			$8,365.60			$2,030.00
	TOTAL OPERATING INVENTORY CHANGE			$120.00			$1,801.10			$200.00
OPENING INVESTMENT										
	OPENING OPERATING INVENT			9,435.00			6,564.50			1,830.00
97	MACHINERY - EQUIPMENT	5.0		337.00						
98	BUILDINGS - IMPROVEMEN						242.00			
99	LAND	200.0		31,710.56	102.0		18,189.42	8.0		1,600.00
	OPENING INVESTMENT			$41,482.56			$24,995.92			$3,430.00
CLOSING INVESTMENT										
	CLOSING OPERATING INVENT			9,555.00			8,365.60			2,030.00
97	MACHINERY - EQUIPMENT	5.0		309.00						
98	BUILDINGS - IMPROVEMEN						218.00			
99	LAND	200.0		31,710.56	102.0		18,189.42	8.0		1,600.00
	CLOSING INVESTMENT			$41,574.56			$26,773.02			$3,630.00
	CHANGE IN INVESTMENT			$92.00			$1,777.10			$200.00

SECTION 19 INVENTORY ANALYSIS — FARM NUMBER GK0072 — DATE PROCESSED 03/20/73 — PAGE 13

TI	DESCRIPTION	-----ENTERPRISE NO. 8100----- UNITS	POUNDS	DOLLARS	*****ENTERPRISE NO. 9500***** UNITS	POUNDS	DOLLARS	----------OVERHEAD---------- UNITS	POUNDS	DOLLARS
OPENING INVENTORY OF										
10	MISC CURRENT FARM SALE									1,141.06
15	OTHER LIVESTOCK							1.0	1,000.0	250.00
18	FORAGE	25.0		750.00						
90	MISC CAPITAL ASSETS				7.1		710.00			
95	OTHER LIVESTOCK							2.0	2,200.0	1,000.00
	TOTAL OPENING OPERATING INVENTORY			$750.00			$710.00			$2,391.06
CLOSING INVENTORY OF										
10	MISC CURRENT FARM SALE									561.80
15	OTHER LIVESTOCK							1.0	1,000.0	250.00
18	FORAGE	343.0	19,080.0	818.00						
90	MISC CAPITAL ASSETS						710.00			
95	OTHER LIVESTOCK									
	TOTAL CLOSING OPERATING INVENTORY			$818.00			$710.00			$811.80
	TOTAL OPERATING INVENTORY CHANGE			$68.00			$0.00			$1,579.26-
OPENING INVESTMENT										
	OPENING OPERATING INVENT			750.00			710.00			2,391.06
97	MACHINERY - EQUIPMENT						9.00			2,871.00
98	BUILDINGS - IMPROVEMEN							40.0		2,802.00
99	LAND	25.0		3,750.00	35.0		7,000.00	180.0		9,250.00
	OPENING INVESTMENT			$4,500.00			$7,719.00			$17,314.06
CLOSING INVESTMENT										
	CLOSING OPERATING INVENT			818.00			710.00			811.80
97	MACHINERY - EQUIPMENT						313.00			2,753.00
98	BUILDINGS - IMPROVEMEN							40.0		2,537.00
99	LAND	25.0		3,750.00	35.0		7,000.00	180.0		9,250.00
	CLOSING INVESTMENT			$4,568.00			$8,023.00			$15,351.80
	CHANGE IN INVESTMENT			$68.00			$301.00			$1,962.26-

TABLE XIII (Continued)

SECTION 20 ENTERPRISE SUMMARY — FARM NUMBER 73072 — DATE PROCESSED 03/20/73 — PAGE 14 9

TI	DESCRIPTION	ENTERPRISE NO. 1100 UNITS	1100 POUNDS	1100 DOLLARS	ENTERPRISE NO. 1300 UNITS	1300 POUNDS	1300 DOLLARS	ENTERPRISE NO. 7700 UNITS	7700 POUNDS	7700 DOLLARS
11	BEEF	38.0	15,200.0	7,600.00	21.0	14,422.0	5,839.62			
17	GRAIN									
18	FORAGE									3,080.10
36	AGRI. PROGRAM PAYMENTS									671.05
37	TAX REFUNDS									15.18
	TOTAL CURRENT FARM SALES			$7,600.00			$5,839.62			$3,766.33
40	MISC CURR FARM EXPENSE									
41	LABOR	361.0		618.50	191.0		331.50	148.0		222.00
42	REPAIRS			100.00			100.00	15.0		49.63
44	FEED	406.0	28,000.0	1,667.30	286.0	17,225.0	1,961.95			
45	SEEDS AND PLANTS							203.0	14,008.0	527.35
46	FERTILIZER-LIME-CHEM	8.0	16,550.0	539.46		22,960.0	642.74		15,130.0	651.90
47	MACHINE HIRE							8.0		44.00
48	SUPPLIES	3.0		302.73			176.90			127.52
50	MISCELLANEOUS EXPENSE	11.0		431.07			152.58			175.00
51	VETERINARY-MEDICINE	2.5		143.06	1.5		111.75			
52	GAS-FUEL-OIL			7.54			2.99			54.73
54	TAXES			235.90			95.20	.5		100.90
55	INSURANCE									115.84
56	UTILITIES(ELEC,PHONE)			100.16			72.26			23.31
57	FARM RENT						330.64			
58	FREIGHT-TRUCKING						170.00			
	TOTAL CURRENT FARM EXPENSES			$4,365.72			$4,149.51			$2,092.18
61	BEEF				45.0	31,769.0	13,018.62			
	TOTAL SALE OF PURCHASES FOR RESALE			$0.00			$13,018.62			$0.00
71	BEEF				63.0	36,450.0	16,362.73			
	TOTAL PURCHASE OF PURCH FOR RESALE			$0.00			$16,362.73			$0.00
81	BEEF BREEDING STOCK	13.0	13,064.0	3,486.69						
	TOTAL SALE OF CAPITAL LIVESTOCK			$3,486.69			$0.00			$0.00
91	BEEF BREEDING STOCK	2.0	1,200.0	850.00						
	TOTAL PURCHASE OF CAPITAL LIVESTOCK			$850.00			$0.00			$0.00
	ENTERPRISE OPERATING INCOME			$11,986.69			$16,858.24			$3,766.33
	OPERATING INVENTORY CHANGE			$120.00			$1,801.10			$200.00
	ENTERPRISE OPERATING EXPENSE			$5,215.72			$20,511.24			$2,092.18
	DEPRECIATION FROM SECT 16			$91.26			$114.25			$198.91
	6 PCT INT CHARGE LESS INT PAID			$2,546.44			$2,065.17			$241.92
	ENTERPRISE OPERATING GAIN OR LOSS			$3,353.27			$2,031.32-			$1,433.32
	ENTERPRISE PCT RETURN ON INVESTMENT			13.90			0.09			41.54

TABLE XIII (Continued)

SECTION 20 ENTERPRISE SUMMARY (CONT) FARM NUMBER [illegible] DATE PROCESSED 03/20/73 PAGE 15 9

TI	DESCRIPTION	ENTERPRISE NO. 8100 UNITS	POUNDS	DOLLARS	****ENTERPRISE NO. 9500***** UNITS	POUNDS	DOLLARS	OVERHEAD UNITS	POUNDS	DOLLARS
15	OTHER LIVESTOCK							2.0		895.00
17	GRAIN									
18	FORAGE	340.0	20,400.0	340.00						3,080.10-
19	CASH CROPS					15,643.0	1,965.62			
20	RENTAL INCOME									330.64
35	PATRONAGE REFUNDS						4.55			14.20
36	AGRI. PROGRAM PAYMENTS									770.04
	TOTAL CURRENT FARM SALES			$340.00			$1,970.17			$1,070.22-
40	MISC OTHR FARM EXPENSE									
41	LABOR	4.0		6.00	307.0		460.50	1,011.0-		803.99
42	REPAIRS			40.00			103.90			
43	INTEREST									3,461.54
44	FEED							150.0	12,475.0	2,799.00-
45	SEEDS AND PLANTS		750.0	130.66		2,813.0	1,021.43		100.0	8.13
46	FERTILIZER-LIME-CHEM		3,040.0	125.60	5.7		122.65	3.0	22,724.0	900.63
47	MACHINE HIRE	585.0		221.21			427.05	65.0		2,468.00
48	SUPPLIES			50.00	7.0		106.82	110.0	50.0	
50	MISCELLANEOUS EXPENSE			50.00			110.50			224.52
51	VETERINARY-MEDICINE									15.63
52	GAS-FUEL-OIL			1.17			76.49	1,040.9		89.47
54	TAXES			40.02	.5		82.18	14.0		
55	INSURANCE			50.00			70.00			
56	UTILITIES(ELEC,PHONE)			10.00			25.00			
58	FREIGHT-TRUCKING	585.0		78.96						10.00
59	CONSERVATION EXPENSE									1,598.00
	TOTAL CURRENT FARM EXPENSES			$909.62			$2,606.52			$6,780.91
85	OTHER LIVESTOCK							3.0		1,810.00
	TOTAL SALE OF CAPITAL LIVESTOCK			$0.00			$0.00			$1,810.00
87	MACHINERY - EQUIPMENT									
	TOTAL SALE OF MACH, BUILD, LAND			$0.00			$0.00			$0.00
97	MACHINERY - EQUIPMENT						350.00			500.00
	TOTAL PURCHASE OF MACH, BUILD, LAND			$0.00			$350.00			$500.00
	ENTERPRISE OPERATING INCOME			$340.00			$1,970.17			$739.78
	OPERATING INVENTORY CHANGE			$68.00			$0.00			$1,579.25-
	ENTERPRISE OPERATING EXPENSE			$809.62			$2,606.52			$6,780.91
	DEPRECIATION FROM SECT 16			$0.00			$245.85			$322.73
	6 PCT INT CHARGE LESS INT PAID			$297.10			$542.36			$2,246.33-
	ENTERPRISE OPERATING GAIN OR LOSS			$598.72-			$1,424.56-			$5,696.79-
	ENTERPRISE PCT RETURN ON INVESTMENT			8.11-			9.75-			11.97

TABLE XIII (Continued)

SECTION 21 ENTERPRISE SUMMARY PER UNIT — FARM NUMBER [illegible] — DATE PROCESSED 03/20/73 — PAGE 16

TI	DESCRIPTION	-----ENTERPRISE NO. 1100----- DIVIDED BY 42.0 HEAD UNITS	POUNDS	DOLLARS	****ENTERPRISE NO. 1300***** DIVIDED BY 121.0 HEAD UNITS	POUNDS	DOLLARS	-----ENTERPRISE NO. 7000----- DIVIDED BY 185.0 ACRES UNITS	POUNDS	DOLLARS
11	BEEF	.9	381.9	180.95	.1	119.1	48.26			
17	GRAIN									16.83
18	FORAGE									3.66
36	AGRI. PROGRAM PAYMENTS									.08
37	TAX REFUNDS									
	TOTAL CURRENT FARM SALES			$180.95			$48.26			$20.57
40	MISC CURR FARM EXPENSE									
41	LABOR	8.5		14.72	1.5		2.73	.8		1.21
42	REPAIRS			2.36			.82			.27
44	FEED	10.9	666.6	44.93	2.3	142.3	16.21			
45	SEEDS AND PLANTS							1.1	76.5	2.88
46	FERTILIZER-LIME-CHEM	.1	441.6	12.84		189.7	5.31		82.6	3.56
47	MACHINE HIRE									.24
48	SUPPLIES			7.20			1.46			.69
50	MISCELLANEOUS EXPENSE	.2		10.26			1.26			.95
51	VETERINARY-MEDICINE			5.40			.92			
52	GAS-FUEL-OIL			.17			.02			.29
54	TAXES			5.61			.78			.55
55	INSURANCE									.63
56	UTILITIES(ELEC,PHONE)			2.38			.59			.12
57	FARM RENT						2.73			
58	FREIGHT-TRUCKING						1.40			
	TOTAL CURRENT FARM EXPENSES			$103.89			$34.23			$11.39
61	BEEF				.3	262.5	107.59			
	TOTAL SALE OF PURCHASES FOR RESALE			$0.00			$107.59			$0.00
71	BEEF				.6	301.2	135.22			
	TOTAL PURCHASE OF PURCH FOR RESALE			$0.00			$135.22			$0.00
81	BEEF BREEDING STOCK	.3	311.0	83.01						
	TOTAL SALE OF CAPITAL LIVESTOCK			$83.01			$0.00			$0.00
91	BEEF BREEDING STOCK		26.5	20.23						
	TOTAL PURCHASE OF CAPITAL LIVESTOCK			$20.23			$0.00			$0.00
	ENTERPRISE OPERATING INCOME			$263.96			$155.85			$20.58
	OPERATING INVENTORY CHANGE			$2.69			$14.68			$1.09
	ENTERPRISE OPERATING EXPENSE			$124.18			$169.51			$11.43
	DEPRECIATION FROM SECT 16			$2.17			$0.94			$1.08
	6 PCT INT CHARGE LESS INT PAID			$60.62			$17.06			$1.32
	ENTERPRISE OPERATING GAIN OR LOSS			$79.83			$16.78-			$7.83
	ENTERPRISE PCT RETURN ON INVESTMENT			13.90			9.09			41.54

TABLE XIII (Continued)

SECTION 21 ENTERPRISE SUMMARY PER UNIT (CONT) FARM NUMBER [illegible] DATE PROCESSED 03/20/73 PAGE 17

TI	DESCRIPTION	ENTERPRISE NO. 8100 DIVIDED BY 25.0 ACRES UNITS	POUNDS	DOLLARS	****ENTERPRISE NO. 9500***** DIVIDED BY 35.0 ACRES UNITS	POUNDS	DOLLARS	OVERHEAD DIVIDED BY 550.0 ACRES UNITS	POUNDS	DOLLARS
15	OTHER LIVESTOCK									1.62
17	GRAIN									
18	FORAGE	13.6	816.0	13.60						5.60-
19	CASH CROPS					446.9	56.16			
20	RENTAL INCOME									.60
35	PATRONAGE REFUNDS						.13			.02
36	AGRI. PROGRAM PAYMENTS									1.40
	TOTAL CURRENT FARM SALES			$13.60			$56.29			$1.96-
40	MISC CURR FARM EXPENSE									
41	LABOR	.1		.24	8.7		13.15	1.8-		1.46
42	REPAIRS			1.60			2.96			
43	INTEREST									6.29
44	FEED							.2	22.6	5.08-
45	SEEDS AND PLANTS		30.0	5.22		80.3	29.18		.1	.01
46	FERTILIZER-LIME-CHEM		121.6	5.02	.1		3.50		41.3	1.63
47	MACHINE HIRE	23.4		8.84			12.20	.1		4.48
48	SUPPLIES			2.00	.2		3.05	.2		
50	MISCELLANEOUS EXPENSE			2.00			3.15			.40
51	VETERINARY-MEDICINE									.02
52	GAS-FUEL-OIL			.04			2.18	1.8		.16
54	TAXES			1.84			2.34			
55	INSURANCE			2.00			2.00			
56	UTILITIES(ELEC,PHONE)			.40			.71			
58	FREIGHT-TRUCKING	23.4		3.15						.01
59	CONSERVATION EXPENSE									2.90
	TOTAL CURRENT FARM EXPENSES			$32.35			$74.42			$12.28
65	OTHER LIVESTOCK									3.29
	TOTAL SALE OF CAPITAL LIVESTOCK			$0.00			$0.00			$3.29
87	MACHINERY - EQUIPMENT									
	TOTAL SALE OF MACH, BUILD, LAND			$0.00			$0.00			$0.00
97	MACHINERY - EQUIPMENT						10.00			.90
	TOTAL PURCHASE OF MACH, BUILD, LAND			$0.00			$10.00			$0.90
	ENTERPRISE OPERATING INCOME			$13.60			$56.29			$1.34
	OPERATING INVENTORY CHANGE			$2.72			$0.00			$2.87-
	ENTERPRISE OPERATING EXPENSE			$32.38			$74.47			$12.32
	DEPRECIATION FROM SECT 16			$0.00			$7.02			$0.58
	6 PCT INT CHARGE LESS INT PAID			$11.66			$15.49			$6.98-
	ENTERPRISE OPERATING GAIN OR LOSS			$27.94-			$40.70-			$10.35-
	ENTERPRISE PCT RETURN ON INVESTMENT			8.11-			9.75-			11.97

TABLE XIII (Continued)

SECTION 22 PRODUCTION SECTION — FARM NUMBER OK0072 — DATE PROCESSED 03/20/73 — PAGE 18

DESCRIPTION	-----ENTERPRISE NO. 1100----- UNITS	POUNDS	DOLLARS	****ENTERPRISE NO. 1300***** UNITS	POUNDS	DOLLARS	-----ENTERPRISE NO. 7000----- UNITS	POUNDS	DOLLARS
OPEN INV OF MATURE FEMALES	40.0	36,000.0	6,400.00						
OTHER LIVESTOCK	17.0	8,600.0	2,235.00	38.0	18,425.0	6,564.50			
GRAIN							183.0		1,830.00
FEED	800.0	48,000.0	800.00						
PURCHASES OF BREEDING STOCK	2.0	1,200.0	850.00						
OTHER LIVESTOCK				83.0	36,450.0	16,362.73			
FEED	460.0	28,000.0	1,887.30	280.0	17,225.0	1,961.95			
SALES OF LIVESTOCK	51.0	28,264.0	11,086.69	66.0	46,191.0	18,858.24			
FORAGE									3,080.10
CLOSE INV OF MATURE FEMALES	36.0	32,400.0	5,760.00						
OTHER LIVESTOCK	24.0	15,200.0	3,795.00	38.0	16,960.0	8,365.60			
GRAIN							203.0		2,030.00
DEATHS AND CASUALTY LOSSES	6.0	1,005.0							
PRODUCTION BIRTHS	41.0								
WEANINGS	38.0								
RESIDUAL LIVESTK	38.0	30,064.0	11,156.69		8,276.0	4,296.61			
GRAIN							208.0	12,480.0	312.00
FORAGE									3,080.10
TOTAL PRODUCTION	38.0	30,064.0	11,156.69		8,276.0	4,296.61	208.0	12,480.0	3,392.10
FEED FED IN ENTERPRISE	1,260.0	76,000.0	2,687.30	280.0	17,225.0	1,961.95			
ITEMS LOST OR UNACCOUNTED FOR	17.0			17.0-				12,480.0	112.00

SECTION 22 PRODUCTION SECTION CONTINUED — FARM NUMBER OK0072 — DATE PROCESSED 03/20/73 — PAGE 19

DESCRIPTION	-----ENTERPRISE NO. 8100----- UNITS	POUNDS	DOLLARS	****ENTERPRISE NO. 9500***** UNITS	POUNDS	DOLLARS	----------OVERHEAD---------- UNITS	POUNDS	DOLLARS
OPEN INV OF OTHER LIVESTOCK							3.0	3,200.0	1,250.00
FORAGE	25.0		750.00						
PURCHASES OF FEED							150.0	12,475.0	2,799.00-
SALES OF LIVESTOCK							5.0		2,705.00
FORAGE	340.0	20,400.0	340.00						3,090.10-
CASH CROPS					15,643.0	1,965.62			
CLOSE INV OF OTHER LIVESTOCK							1.0	1,000.0	250.00
FORAGE	343.0	19,080.0	818.00						
PRODUCTION RESIDUAL LIVESTK								2,200.0-	1,705.00
FORAGE	658.0	39,480.0	658.00						
CASH CROP, OTHER					17,220.0	1,965.62			
TOTAL PRODUCTION	658.0	39,480.0	658.00		17,220.0	1,965.62		2,200.0-	1,705.00
ITEMS LOST OR UNACCOUNTED FOR			250.00		1,577.0		3.0	12,475.0	281.10

SECTION 23 ANALYSIS OF PRODUCTION — FARM NUMBER OK0072 — DATE PROCESSED 03/20/73 — PAGE 19

	ENTERPRISE NO 1100	ENTERPRISE NO 1300	ENTERPRISE NO 7000	ENTERPRISE NO 8100	ENTERPRISE NO 9500	OVERHEAD
ENTERPRISE SIZE (UNITS)	42.000	121.000	183.000	25.000	35.000	550.000
UNITS OF PRODUCTION / UNIT	.904		1.136	26.320		
POUNDS OF PRODUCTION / UNIT	715.809	68.396	68.196	1,579.200	492.000	4.000-
VALUE OF PRODUCTION / UNIT	265.635	35.509	18.536	26.320	56.160	3.100
FEED COST / HEAD	63.983	16.214				
FEED COST / 100 LBS PROD	8.938	23.706				
LBS FEED / 100 LBS PROD	252.794	208.131				
VALUE OF PROD / 100 LBS FEED	14.679	24.944				
POUNDS OF PROD / 100 LBS FEED	39.557	48.046				
BIRTHS / 100 DAMS	97.619					
WEANINGS / 100 DAMS	90.476					
WEANINGS / 100 BIRTHS	92.682					
DEATHS / 100 DAMS	14.285					

punched from the Costfinder Analysis Strip, and Balance Due Consolidation programs. Among these cards are accounts payable and receivable, opening and closing inventory, crop reports and corrections. Division C lists the Machinery and Labor Use cards which have been reported throughout the year. The value of this information will be pointed out in the explanation of Sections 16 through 18. Division D lists the cards punched by the depreciation program. They include one card for each type of asset for each enterprise.

Section 11, Table of Income and Expenses is listed in Table XIII. The section is converted to the accrual accounting basis by subtracting the opening accounts payable and receivable and adding closing accounts payable and receivable to include charged purchases and sales made, but not paid for this year. Inventory analysis, Section 12, has been explained in Chapter II because of its application to financial analysis and credit acquisition. However, it is an important part of the whole-farm analysis. Section 13, Value of Net Livestock Production prints only if there were non-zero observations for a particular class of livestock. Net production is computed as Closing Inventory plus Sales minus Purchases less Opening Inventory. In the case of feed, FEED FED is computed as Opening Inventory plus Purchases plus Production minus Sales less Closing Inventory. Accurate computation of feed fed is extremely sensitive to missed inventories and sales. Section 14, Land Use Summary, lists total acres and value of production from the crop report entries listed in Section 10, Division B. Section 15, Analysis Factors, concludes and summarizes the whole-farm analysis. These factors are explained in the Costfinder Report Manual. A sample output of Sections 10, 11, 13, 14, and 15 is listed in Table XIII. These sections

will not be changed as a part of this study. The remaining sections 16-23 will be explained in greater detail to illustrate the modification included in the 1973 version of these sections.

1966-72 Version of Modified Output Sections

Section 16, Machinery Analysis, Table XIII, lists horizontally seven columns for the five individual enterprises, the overhead, and the total. It lists vertically, a major category for each type of machinery, as set out in the General column of the Costfinder code under TI code 96, vehicles, and TI code 97, machinery and one row for TI code 98, buildings. Subcategories under each of the preceding include: (1) ANALYSIS DEPRECIATION which equals 20 percent per year since purchase for machinery and ten percent per year for buildings; (2) HOURS USED which equals the amounts in the MACH HR column of the Machine and Labor Use reports in Section 10 Division C; (3) DEPRECIATION ALLOCATED which equals the percentage distribution among enterprises of the depreciation computed. Opening and closing inventories for machinery and buildings for each enterprise concludes this section.

Section 17, Labor Section is listed in Table XIII. Across the top of the page, five enterprises, overhead, and totals are printed just as in Section 16. Each enterprise lists the number of hours and total cost for each row. One row is listed for each job according to the machine or building used. The number of hours is determined from the data in Section 10, Division C. Labor is valued at $1.50 per hour to calculate cost for allocation purposes.

Section 18, Fuel Section, is organized horizontally the same as Section 16 and 17. Gallons and cost are listed for each enterprise

and row. Vertically, there is one row for each type of machinery and a separate row in each machine type for each fuel used. The total number of gallons is taken from Machine and Labor Use column, GAL FUEL, while cost is determined by multiplying gallons by a preassigned value which is listed at the bottom of Section 18, Table XIII.

Section 19, Inventory Analysis of Enterprises, utilized the same data cards that were used in Section 12 whole-farm Inventory analysis.[4] Horizontally, three enterprises are printed per page. Information listed for each of the enterprises includes units, pounds, and dollars. Vertically, the difference in opening and closing inventory represents total operating inventory change. In this section livestock is considered in operating inventory, while buildings, machinery, and land are classified as non-operating investment.

Section 20, Enterprise Summary, is listed in Table XIII. The top of the page is a duplicate of Section 19 with three enterprises per page. Vertically, only those TI categories that are used by one of the three enterprises on that page, are printed. Sub-totals are printed for non-farm income, farm sales, farm expenses, sale of items purchased for resale, purchase of items purchased for resale and purchase and sales of capital assets. Operating income plus inventory change and expenses, less depreciation, from section 16, and an interest charge equal enterprise operating gain or loss.

Since the enterprise section is always on an accrual basis, there is no adjustment to accounts payable and receivable necessary. However,

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[4] A sample of Section 19 is listed in Table XIII.

the following adjustments are made: (1) operator and family labor is valued at $250 per month and added to TI code 41 in the overhead enterprise; (2) enterprise labor costs from Section 17 added to the individual enterprises and subtracted from overhead; (3) fuel costs from Section 18, are added to the individual enterprise and subtracted from overhead; (4) depreciation from Section 16 is charged in the summary part of the section for each enterprise; (5) a capital charge of six percent on average investment and operating expenses adjusted for income is also added to the costs in the summary part of Section 20. Also land inventoried in the enterprise on the closing inventory is assumed to have been used by that enterprise, and interest is charged accordingly.[5]

Section 21, Enterprise Summary Per Unit, Table XIII, is the same as Section 20, except that all figures have been divided by the number of units in the enterprise. The divisors and their method of calculation are listed in the Costfinder Report Manual. For crop and livestock enterprises, this per unit section provides a budget on a per-acre or per-head basis which may be used for comparison and planning purposes.

Section 22, Production Section, Table XIII, is organized horizontally the same as Sections 19, 20, and 21. Three enterprises per page are listed with units, pounds, and dollars for each enterprise. Opening inventory of mature females and other livestock is added to purchases

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[5]Ted R. Nelson and William L. Brant, Costfinder Report Manual (Oklahoma State University, 1970), pp. 19-20.

of livestock, while sales and closing inventory are subtracted to give Net Production of livestock. Also, births and weaning are included on a per-head basis. For crop enterprises, ITEMS LOST OR UNACCOUNTED FOR equal opening inventory plus crops purchased or internally transferred in plus production minus crop sales or items internally transferred out of the enterprise minus closing inventory. ITEMS LOST OR UNACCOUNTED FOR should equal zero except for omissions and inventory estimation errors. The crop production information comes directly from the crop report entries, account code 8.

Section 23, Analysis of Production, Table XIII, lists the following production efficiency factors. Enterprise units is the same as defined in Section 21, Per Unit Summary. Units of production per unit may be bushels per acre, or tons of hay per acre depending on the enterprise. Pounds of production per unit represents such measures as Beef per Cow, or Milk per Cow. The value of production per unit divides the dollar value of production by the number of units in the enterprise.

The remaining efficiency factors are self-explanatory. Birth rate per 100 dams for cattle is the percent calf crop. Weanings per 100 dams and weanings per 100 births are recognized as weaning rate depending on the enterprise. Deaths per 100 dams is referred to as the death rate. These production factors are listed horizontally for each enterprise and overhead.

The previous explanation of the year-end analysis program, Section 10 through 23, was given to provide a comparison with the new version of the program and provides an understanding of the reasons for change. It will also help in evaluating the merit of the changes made.

1973 Version of Sections 16 Through 22

The original initiative for modification of the year-end analysis program was the modification of the enterprise sections, printed in Sections 16 through 23. Depending on the amount of input data, the printing of these sections could require as much as fifteen pages of computer output. It is confusing and inconvenient to search among these fifteen pages to analyze all information relating to an individual enterprise.

Objectives

The first objective of this modification is to list all analysis information relating to an individual enterprise on one or two consecutive pages. The enterprises would appear in single-file instead of three per page in each of the sections. The second objective is to reduce duplication of output information. For example, inventory information appears in Sections 19, 20, 21 and 22. The third objective is to minimize the increase in the number of pages of output and possibly to reduce the number of pages needed. Long and complex computer printouts can be discouraging to a farmer.

Sections 16 Through 18

The following will explain the reorganization of year-end analysis Sections 16 through 22. Sections 16 through 18 are similar in their organization.[6] As a result, these three sections are combined into one

[6]Sections 16 through 18 are listed in Table XIII.

section that lists the information from all three sections relating to one enterprise. The title line of Section 16, Machinery, Labor and Fuel Analysis lists the enterprise.[7] Vertically, the categories are the same for all three sections. They represent each type of machinery as set out in the GENERAL column of the Costfinder code under TI code 96, vehicles, TI code 97, machinery, and one row for TI code 98, buildings. Across the page, Ending Value, Hours Used, and Depreciation Allocated appear from the old Section 16. From the old Section 18, the basic fuels are listed: Gas, Deisel, and others. Value is determined by multiplying the number of gallons by a predetermined price. Values from the old Section 17, Labor, include the two workers having the largest number of hours of labor allocated to this enterprise. All other labor is added to give total hours of labor which is multiplied by a predetermined price to yield total labor cost. The last column is a total of the depreciation, fuel and labor cost for each type of machinery. Enterprise totals are listed for each horizontal category. This new section is expected to be shorter than either of the old Sections 17 or 18. A farm which uses many types of specialized machinery and buildings should require no more than one-half page for this section.

The most apparent saving of space is in the old Section 16. In practice most machinery depreciation costs are not allocated to a specific enterprise, thus most values are listed in overhead. Table XIII indicates a large amount of blank space in the old Sections 16, 17, and 18.

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[7] A sample of the new Section 16 Machinery, Labor, and Fuel Analysis is listed in Table XIV.

TABLE XIV

THE 1973 VERSION OF SECTION 16, MACHINE, FUEL, AND LABOR ANALYSIS AND SECTION 19, ENTERPRISE ANALYSIS

SECTION 16 MACHINE LABOR AND FUEL ANALYSIS — ENTERPRISE 9500 — PEANUTS — PAGE 10

TI	CODE	DESC	ENDING VALUE	HOURS USED	DEPREC ALLOCATD	FUEL GAS	USED ********** DEISEL	OTHER	$VALUE	LABOR USED WKR 1	WKR 07	OTHERS	TOTAL	$VALUE	TOTAL $ COST
63		TRACTORS		187.00	61.63	3.0			.72	1.0			1.0	1.50	63.85
73		MATER & HDNG		3.00	2.21	10.0			2.40	3.0			3.0	4.50	9.11
74		TILLAGE MACH		64.00	36.91	45.0	172.0		33.16	50.0	23.0		73.0	109.50	179.57
75		PLANT & CULT	137.00	51.00	78.78		99.0		12.87	31.0	22.0	9.0	62.0	93.00	184.65
76		IRRIG & CHEM		14.00	23.58	40.00			9.60	10.0	5.0	2.0	17.0	25.50	58.68
77		HARVST EQUIP	173.00	38.00	40.00		70.0		9.10	45.0	7.0		52.0	78.00	127.10
78		HAYING EQUIP		16.00	2.47	36.00			8.64	10.0	12.0	2.0	24.0	36.00	47.11
		MISCELLANEOUS								50.0	25.0		75.0	112.50	112.50
		ENTRPRSE TOTALS	310.00	373.00	245.85	134.0	341.0		76.49	200.0	94.0	13.0	307.0	460.50	782.52

SECTION 19 ENTERPRISE ANALYSIS

TI	CODE	DESCRIPTION	UNITS	POUNDS	DOLLARS	PER ACRE ON 35 ACRES UNITS	POUNDS	DOLLARS	PER HUNDREDWEIGHT ON 156.43 CWT. UNITS	POUNDS	DOLLARS
		INCOME									
019		CASH CROPS		15643.0	1965.62		446.94	56.16		1.0	12.50
035		PATRONAGE REFUNDS			4.55			.13			.03
		TOTAL INCOME			1970.17			56.29			12.53
		CLOSING INVENTORY									
590		MISC CAPITAL ASSET			710.00			20.28			.61
599		LAND	35.0		7000.00			2000.00			44.74
		TOTAL CLOSING INVENTORY			7710.00			2020.28			45.35
		OPENING INVENTORY									
590		MISC CAPITAL ASSET	35.0		710.00			20.28			.61
599		LAND			7000.00			2000.00			44.74
		TOTAL OPENING INVENTORY			7710.00			2020.28			45.35
		EXPENSES									
041		LABOR			460.50			13.20			2.94
042		REPAIRS			103.90			2.96			.66
045		SEEDS & PLANT		2813.0	1021.43		80.37	29.18		17.98	6.52
046		FERT-LIME-CHEM			122.65			3.50			.78
047		MACHINE HIRE			427.05			12.20			2.72
048		SUPPLIES	7.0		106.82			3.05			.68
050		MISC EXPENSES			110.50			3.15			.70
052		GAS-FUEL-OIL			76.49			2.18			.49
054		TAXES			82.18			2.34			.52
055		INSURANCE			70.00			2.00			.44
056		UTILITIES			25.00			.71			.15
		TOTAL EXPENSES	7.0	2813.0	2606.52		80.37	74.47		17.98	16.67
		RETURNS SUMMARY									
		TOTAL OPERATING RETURNS			1970.17			56.29			12.52
PLUS:		NET INVENTORY CHANGE			0.00			0.00			0.00
LESS:		TOTAL OPERATING EXPENSES			2606.52			74.47			16.67
GIVES:		RETURNS TO LABOR CAPITAL MACH & MGMT			-636.35			-18.15			-4.06
LESS:		DEPRECIATION			245.85			7.11			1.59
GIVES:		RETURNS TO LABOR, CAPITAL & MGMT			-885.20			-25.29			-5.65
LESS:		INTERNAL LABOR			0.00						
GIVES:		RETURN TO CAPITAL AND MANAGEMENT			-885.20			-25.29			-5.65
LESS:		INTEREST ON OPERATING INVESTMENT			542.36			14.01			3.46
LESS:		LAND CHARGE			0.00						
GIVES:		RETURN TO MANAGEMENT			-1427.56			-40.87			-9.12
DIV BY:		AVERAGE INVESTMENT			14610.87			-417.45			-93.40
GIVES:		RATE OF RETURN ON INVESTMENT			-9.75						

Sections 19 Through 22

Sections 19 through 22, Table XIII, lists Inventory, Income and Expense Accounting, Per Unit Division, and Production Analysis in the respective sections. The modifications are designed to combine the important information from each of these sections for one enterprise. This section will follow the new Section 16 which has previously been explained. Thus, all information relating to one enterprise will appear on one or two consecutive pages. The heading of the 1973 version of Section 19, Enterprise Analysis, Table XIV, includes three sets of units, pounds, and dollars as in the old section. Total figures from the old Section 20 are first. The second set have been divided by the enterprise size just as in the old per unit Summary, Section 21. Enterprise size may be defined as number of head or acres. The third set of unit pounds, and dollars have been divided by the number of hundred weights, bales, bushels, or tons produced by the enterprise. Horizontally, the three sets of figures provide information previously listed in Sections 20, 21, and 22. The analysis of any enterprise must include inventory, income and sales, and purchases and expenses. Vertically, the first category is income which includes Product sales, Capital sales, and sales of Items Purchased for Resale. The total of these items is added to closing inventories to give total operating returns.

Opening inventories and production expenses, which include purchases of Capital assets, items purchased for resale, and the cost of internally transferred items, are added to yield total operating expenses. The difference in returns and expenses gives returns to Labor,

Capital, Machinery, and Management. Then depreciation from Section 16 is subtracted to give returns to Labor, Capital, and Management. Return to capital and management can be obtained by subtracting internal labor. Return to management is then obtained by taking out interest on operating investment, or on opportunity cost, and subtracting a land charge. Thus, by dividing the return to management by average investment, the more familiar rate of return on investment is obtained. Section 23 will be printed after the last enterprise.

The preceding discussion explains the enterprise analysis information for one enterprise. Depending on the type of enterprise, the new Section 16 and 19 should take no more than two pages. If the average farm has five enterprises the number of pages of computer printout will not increase. Obviously all enterprise information relating to one enterprise will be listed on one or two consecutive pages. Some duplication of information is unavoidable in providing understandable financial and production analysis information.

Comparison With Other Farms

A very important part of financial and production analysis is comparing one's results with other farms of the same type, geographical area, or size. The Costfinder program, Analysis Comparison, provides a variety of possible alternatives.[8] The year-end analysis program punches a wholefarm header card for each farm processed. This card contains the current year, farm number, gross farm production, farm size

[8]The Analysis Comparison program was initiated in 1969 by Ted R. Nelson, Extension Economist. Original programming was done by Steve Schultz, student programer. Modifications since that time have been completed by Mike Hardin, Research Assistant.

index, return to labor and management, percent return to labor and management, percent of crop land irrigated, and percent of gross farm production from: beef, dairy, swine, other livestock, poultry, grain, forage, and cash crops. A comparison can be made on each of the previously listed categories in the wholefarm header card. The year-end analysis program also writes all wholefarm information on a disk file so that the analysis comparison program generates an output very similar to Sections 11 through 15. Table XV lists Sections 41 through 45 which contains three sets of information. However, the three sets in these sections represent: (1) low group, (2) high group, and (3) average of all farms. As previously mentioned, comparisons can be made based on any of the values listed in the wholefarm header card. By printing the wholefarm header cards for all farms in a particular comparison run, the high and low value can be determined so that one-third of the values of the farms included will fall below and above respectively the low and high values chosen. This program allows the farmer to compare his farm with other farms. For example, comparisons can be made on rates of return using only the farms receiving more than 50 percent of their gross farm income from beef, or dairy, or any percent that is determined.

The year-end analysis program also punches an enterprise header card for each enterprise. This card contains the current year, unique farm number, enterprise code, enterprise size or units, percent return on average investment, percent contribution to gross farm production and return per unit. It has been suggested that a program similar to the wholefarm analysis comparison program be written to compare enterprises. Careful examination of these enterprise header cards indicated that this

TABLE XV

THE ANALYSIS COMPARISON PROGRAM PRINTOUT

SECTION 41 1970 ALL FARMS BY RATE RTN ON AVG INVESTMENT-OKLA. DATE PROCESSED 03/22/73 PAGE 01

	LOW GROUP BELOW 1.80				HIGH GROUP ABOVE 6.01				AVERAGE OF ALL FARMS			
	# OBS	UNITS	POUNDS	DOLLARS	# OBS	UNITS	POUNDS	DOLLARS	# OBS	UNITS	POUNDS	DOLLARS
10 MISC CURRENT FARM SALE	(1)			4,000.00					(1)			4,000.00
11 BEEF	(46)	85	35,047	14,650.07	(5)	43	15,174	5,457.19	(52)	80	32,782	13,580.83
12 DAIRY	(17)	25	6,135	2,188.91					(18)	25	5,661	2,158.77
13 SHEEP					(5)	116	4,115	2,882.47	(6)	98	3,564	2,433.36
14 SWINE	(9)	231	41,400	11,351.17	(2)	418	4,565	32,145.75	(11)	265	54,702	15,132.00
15 OTHER LIVESTOCK	(1)	15		4,650.00					(1)	15		4,650.00
17 GRAIN	(45)	7341	443,663	12,923.63	(6)	1594e	531,014	20,506.32	(52)	8224	490,181	12,801.13
18 FORAGE	(29)	1620	233,213	5,566.54	(4)	994	799,878	4,084.77	(34)	1513	293,662	3,531.96
19 CASH CROPS	(31)	1334	44,795	13,087.73	(2)	143	1,870	622.82	(34)	1225	40,966	9,782.00
TOTAL RAISED SALES	(62)			28,998.03	(6)			41,102.08	(69)			29,757.93
20 RENTAL INCOME	(37)	168	7,328	3,639.38	(3)			1,254.00	(41)	152	6,613	3,439.22
21 FRUITS AND NUTS	(5)		37,916	13,306.47					(5)		37,916	13,306.47
22 DAIRY PRODUCTS	(17)	218	946,576	91,341.81					(18)	206	919,427	89,466.09
23 WOOL	(1)			31.04	(4)		1,176	827.94	(6)		827	420.90
24 MEAT PRODUCTS	(2)	5	3,254	1,554.22					(2)	5	3,254	1,554.22
26 EGGS	(1)			2,183.60					(1)			2,183.60
28 VEGETABLES	(1)	12		2,024.19					(1)	12		2,024.19
29 SUPPLIES SOLD	(10)	11	17,019	1,607.27					(11)	19	15,471	1,134.89
TOTAL PRODUCT SALES	(50)			25,280.42	(6)			1,032.29	(57)			22,815.36
30 SPECIAL INCOME	(8)			62.94					(8)			62.94
31 MERCHANDISE REC.	(1)			12.30					(1)			12.30
32 MACHINE WORK	(29)	334	419	1,099.76	(3)	40		486.48	(32)	306	380	1,586.22
33 BREEDING FEES	(1)			110.00	(1)			150.00	(2)			130.00
34 WOOD AND LUMBER	(3)	300	1,843	501.24					(3)	300	1,843	501.24
35 PATRONAGE REFUND	(35)		434	504.08	(4)			520.90	(40)		379	493.51
36 AGRI. PROGRAM	(52)	15		7,169.48	(6)			7,419.88	(59)	15		7,162.49
37 TAX REFUNDS	(9)			207.80	(3)			226.47	(12)			212.97
38 INSURANCE PROCEEDS	(12)			155.63	(3)	2		139.79	(15)			152.46
39 MISC SALES	(28)			376.72	(3)			69.84	(31)			347.01
TOTAL ADDITIONAL FAR INCOME	(50)			8,145.81	(6)			8,255.37	(63)			8,054.65
60 MISC PURCHASES FOR RESALE	(2)		18,300	16,369.98					(2)		18,300	16,369.98
61 BEEF	(34)	219	132,031	46,709.19	(4)	94	44,236	18,550.99	(38)	206	122,790	43,745.17
63 SHEEP	(1)	2		35.83	(1)	1	80	25.00	(2)	1	40	30.42
64 SWINE	(4)	133	30,748	7,156.38	(1)	3		134.41	(5)	107	24,598	5,755.98
65 OTHER LIVESTOCK	(1)			55.25					(1)			55.25
67 GRAIN	(7)	598	132,201	5,366.29					(7)	598	132,201	5,366.29
68 FORAGE	(3)	709	89,613	2,602.39					(3)	709	89,613	2,602.39
69 CASH CROPS	(1)	2511	216,878	13,182.18					(1)	2511	216,878	13,182.16
TOTAL SALE OF PUR. FOR RESALE	(36)			47,447.84	(4)			18,595.85	(40)			44,562.64
80 MISC SALE OF CAP ASSETS	(2)			10,969.25					(2)			10,969.25
81 BEEF BREEDING	(44)	24	17,267	4,706.77	(3)	8	9,515	1,836.71	(48)	22	16,487	4,446.81
82 DAIRY	(17)	22	26,031	5,927.20					(18)	21	25,819	5,695.51
83 SHEEP					(3)	16	2,203	175.86	(4)	13	1,742	152.52
84 SWINE	(7)	27	10,070	1,076.30	(1)	40	625	3,446.21	(8)	28	8,889	2,072.54
85 OTHER LIVESTOCK	(2)	5		1,749.25					(2)	5		1,749.25
86 MOTOR VEHICLES	(10)			623.65	(1)			400.00	(11)			603.31
87 MACHINERY AND EQUIPMENT	(11)			332.39					(12)			321.35
88 BUILDINGS AND IMPROV.	(1)			3,500.00					(1)			3,500.00
89 LAND	(6)	72		10,101.99	(1)	11		5,595.00	(7)	83		9,458.14
TOTAL SALE OF CAPITAL ASSETS	(58)			7,248.90	(5)			3,107.78	(64)			6,856.14
TOTAL GROSS FARM INCOME	(62)			91,075.17	(6)			65,576.80	(69)			88,152.40
40 MISC CURRENT FARM EXPENSE	(35)			435.63	(2)			832.15	(37)			457.06
41 LABOR HIRED	(61)	512	4	7,044.37	(6)	541		3,501.12	(68)	510	4	6,632.68
42 REPAIRS	(62)		26	3,118.02	(6)	167		2,608.23	(69)	14	23	3,056.63

TABLE XV (Continued)

SECTION 41 1970 ALL FARMS BY RATE RTN ON AVG INVESTMENT-OKLA. DATE PROCESSED 03/22/73 PAGE 02

	LOW GROUP BELOW 1.00				HIGH GROUP ABOVE 0.01				AVERAGE OF ALL FARMS			
	# OBS	UNITS	POUNDS	DOLLARS	# OBS	UNITS	POUNDS	DOLLARS	# OBS	UNITS	POUNDS	DOLLARS
43 INTEREST	(59)			6,223.80	(6)			3,877.30	(66)			5,959.75
44 FEED	(61)	2218	360,307	11,481.23	(6)	307	109,849	5,743.53	(68)	2017	333,432	10,833.79
45 SEEDS AND PLANTS	(57)	164	15,524	1,233.72	(6)	555	16,456	1,037.53	(64)	198	15,374	1,197.11
46 FERTILIZER-LIME-CHEM	(60)	348	103,945	4,460.72	(6)	165	340,457	5,108.90	(67)	326	124,120	4,474.51
47 MACHINE HIRE	(62)	1071	26,099	2,320.21	(6)	792		1,792.97	(69)	1032	23,914	1,974.18
48 SUPPLIES PURCHASED	(62)	75	3,434	1,944.52	(6)	12	7	1,253.34	(69)	70	3,057	1,870.99
49 BREEDING FEES	(23)	16		868.26					(24)	16		780.43
50 MISCELLANEOUS EXPENSE	(62)	23		885.19	(6)	4		966.45	(69)	24		889.96
51 VETINARY-MEDICINE	(60)	32	22	900.03	(6)	5		739.38	(67)	30	20	875.95
52 GAS-FUEL-OIL	(61)	3493	30	2,249.46	(6)	5593	17	1,815.39	(68)	3688	34	2,188.85
53 STORAGE-WAREHOUSE	(20)	121	8,712	320.39	(3)	2		41.94	(24)	127	5,751	273.97
54 TAXES	(60)	44		1,936.27	(6)	100		2,077.03	(67)	49		1,961.75
55 INSURANCE	(61)			739.11	(6)			748.54	(68)			732.18
56 UTILITIES (ELEC, PHONE)	(60)	894		852.37	(6)	61		692.85	(67)	827		831.46
57 FARM RENT	(56)	182	353	4,243.41	(6)	158		1,989.24	(65)	177	315	4,009.51
58 FREIGHT-TRUCKING	(58)	1151	98,419	1,873.52	(6)	1055		859.15	(65)	1231	84,137	1,768.93
59 CONSERVATION EXPENSE	(27)	12		695.12	(2)	9		404.50	(30)	11		661.22
TOTAL CURRENT FARM EXPENSE	(62)			50,361.58	(6)			35,068.82	(69)			48,576.28
70 MISC PURCHASES FOR RESALE	(23)		18,300	14,732.10					(23)		18,300	14,732.10
71 BEEF	(36)	231	75,639	31,758.92	(4)	131	46,174	15,939.15	(40)	221	72,695	30,131.95
72 DAIRY	(3)	1		480.21					(3)	1		480.21
73 SHEEP	(1)	0		182.00					(1)	0		182.00
74 SWINE	(6)	71	3,260	1,061.53	(1)	0		210.00	(7)	61	2,600	939.89
76 POULTRY	(3)	24		67.35					(3)	24		67.35
77 GRAIN	(41)	3916	320,307	9,585.28					(41)	3916	320,307	9,585.28
78 FORAGE	(33)	134	33,182	3,796.17					(33)	134	33,182	3,796.17
79 CASH CROPS	(33)	971	80,526	3,741.07					(33)	971	80,526	3,741.07
TOTAL PUR. OF PUR. FOR RESALE	(42)			29,526.62	(41)			15,991.65	(46)			28,349.67
90 MISC PUR OF CAPITAL ASSETS	(87)	125	227	12,387.32					(91)	111	245	11,530.15
91 BEEF BREEDING	(26)	13	9,355	3,543.40	(2)	1	700	775.00	(31)	12	8,517	3,258.55
92 DAIRY	(9)	22	29,178	10,259.58					(9)	22	29,178	10,259.58
93 SHEEP					(4)	5	270	383.75	(4)	5	270	383.75
94 SWINE	(6)	11	1,575	968.70	(1)	58		8,079.05	(7)	17	1,350	1,964.46
95 OTHER LIVESTOCK	(1)	1		300.00	(1)	1		40.00	(2)	1		170.00
96 VEHICLES	(46)			4,454.37	(5)	2		2,209.07	(52)			4,226.74
97 MACHINERY	(56)	37		3,199.24	(5)			3,148.07	(62)	34		3,166.04
98 BUILDINGS	(27)		740,830	2,383.13	(2)			1,335.83	(30)		806,747	2,242.52
99 LAND	(10)	53	20	20,453.59	(1)			8,557.10	(11)	48	18	19,372.09
TOTAL PUR. OF CAPITAL ASSETS	(62)			15,317.72	(5)			9,644.51	(68)			14,843.28
TOTAL FARM EXPENSE	(62)			85,881.22	(6)			53,933.08	(69)			82,104.23
TOTAL FM CASH ADJ FOR AP, AR	(62)			5,393.95	(6)			11,443.11	(69)			5,048.17

TABLE XV (Continued)

SECTION 42 1970 ALL FARMS BY RATE RTN ON AVG INVESTMENT-OKLA. DATE PROCESSED 03/22/73 PAGE 03

	LOW GROUP BELOW 1.00			HIGH GROUP ABOVE 0.01			AVERAGE OF ALL FARMS		
	# OBS OPERATORS	OTHERS	TOT FARMS	OBS OPERATORS	OTHERS	TOT FARMS	OBS OPERATORS	OTHERS	TOT FARMS
OPEN INV OF CASH & MISC ASSET	(20) 9,127		9,127	(4) 1,472		1,472	(24) 7,851		7,851
RAISED LIVESTOCK	(53) 10,132	355	10,488	(6) 5,992		0,992	(60) 9,745	314	10,060
RAISED GRAIN	(45) 8,805	101	0,176	(0) 8,053		0,853	(52) 7,990	87	8,078
RAISED FORAGE	(45) 5,767	28	5,815	(3) 4,290		4,290	(51) 5,720	24	5,745
RAISED CASH CROPS	(18) 4,350	2	4,352				(18) 4,350	2	4,352
PRODUCTS, FEED, SUPPLIES	(41) 4,217		4,218	(3) 4,272		4,272	(45) 4,238		4,239
LIVESTOCK FOR RESALE	(20) 38,350	76	38,426	(3) 16,012		16,012	(23) 38,539	76	38,109
CROPS FOR RESALE	(2) 2,296		2,296				(2) 2,296		2,296
MISC CAPITAL ASSETS	(14) 40,554	1,302	40,856				(15) 41,370	1,402	42,772
BREEDING LIVESTOCK	(37) 31,643	1,953	33,307	(0) 11,493		11,493	(04) 29,671	1,481	31,173
VEHICLES AND MACHINERY	(62) 23,229	576	23,800	(0) 20,869		20,869	(69) 22,933	512	23,146
BUILDINGS AND FENCES	(60) 12,564	992	12,807	(0) 12,489		12,489	(67) 11,986	853	12,840
LAND	(62) 173,053	55,334	208,392	(0) 152,440	191,572	344,012	(69) 169,127	103,486	272,614
TOTAL OPENING INVENTORY	(62) 430,452	99,871	367,324	(5) 227,837	191,572	419,410	(67) 380,938	135,702	387,205
PLUS OPEN EXPENT ACCTS REC	(32) 7,618	646	8,234	(4) 2,626		2,626	(37) 8,746	568	7,926
AND OPEN CAPITAL ACCTS REC	(11) 2,190		2,190				(2) 1,579	707	1,882
LESS OPEN CURRENT ACCTS PAY	(61) 40,623	1,000	47,034	(0) 34,886		34,886	(68) 44,049	1,433	40,705
AND OPEN CAPITAL LIABILITIES	(49) 59,364	1,238	60,595	(0) 43,092		43,092	(56) 57,055	1,840	58,956
YIELD TOTAL OPENING NET WORTH	(62) 199,778	96,695	296,433	(0) 151,910	191,572	343,382	(69) 193,947	104,294	298,242
CLOSE INV OF CSH & MISC ASSET	(18) 12,305		12,305	(2) 329		329	(21) 10,651		10,651
RAISED LIVESTOCK	(51) 10,839	527	11,367	(5) 7,663		7,963	(56) 10,433	464	10,897
RAISED GRAIN	(44) 9,317	299	9,616	(0) 8,486	180	8,674	(51) 9,089	283	9,370
RAISED FORAGE	(49) 5,337	61	5,398	(0) 2,931		2,931	(50) 5,129	53	5,183
RAISED CASH CROPS	(16) 3,242	60	3,302				(16) 3,243	60	3,304
PRODUCTS, FEED AND SUPPLIES	(42) 4,111		4,112	(2) 4,766		4,766	(46) 4,155		4,155
LIVESTOCK FOR RESALE	(29) 43,682	79	43,761	(3) 21,966		21,986	(27) 42,516	70	42,586
CROPS FOR RESALE	(2) 6,607		6,607				(2) 6,607		6,607
MISC CAPITAL ASSETS	(14) 50,955	2,032	52,538				(15) 48,196	1,869	50,061
BREEDING LIVESTOCK	(33) 35,492	1,921	37,413	(0) 12,588		12,588	(62) 33,172	1,704	34,846
VEHICLES AND MACHINERY	(62) 24,038	683	24,722	(0) 20,492		20,492	(69) 23,547	614	24,161
BUILDINGS AND FENCES	(60) 11,583	706	12,366	(0) 12,007		12,007	(67) 11,556	743	12,302
LAND	(62) 179,022	56,217	271,839	(0) 153,006	191,572	345,436	(69) 171,535	104,275	275,835
TOTAL CLOSING INVENTORY	(62) 298,511	100,358	399,070	(0) 231,523	191,759	423,282	(69) 289,924	138,234	398,159
PLUS CLOSE CURR ACCTS REC	(34) 7,894	344	8,439	(4) 3,794		3,794	(38) 7,311	613	7,924
AND CLOSE CAP ACCTS REC	(12) 1,709		1,709				(2) 854	787	1,642
LESS CLOSE CURR ACCTS PAY	(58) 56,650	2,815	59,671	(5) 53,086		53,086	(64) 55,513	3,026	58,539
AND CLOSE CAP LIABILITIES	(48) 56,140	1,371	57,511	(0) 33,872		33,872	(55) 52,930	1,213	53,903
YIELDS TOTAL CLOSE NET WORTH	(62) 296,965	97,162	394,127	(0) 155,942	191,759	347,701	(69) 290,777	134,830	309,807
TOTAL INVENTORY CHANGE	(62) 10,956	1,000	11,745	(0) 3,868	180	3,872	(69) 9,421	1,532	10,994
TOTAL CHANGE IN NET WORTH	(62) 7,187	507	7,694	(0) 4,132	180	4,314	(69) 6,844	535	7,385
OPENING CURRENT LOANS	(54) 51,161	1,807	52,969	(3) 40,181		40,181	(00) 49,511	1,627	51,138
OPENING NONCURRENT LOANS	(47) 60,295	1,205	61,500	(0) 41,513		41,513	(54) 57,532	1,633	59,966
CLOSING CURRENT LOANS	(55) 57,017	2,997	60,775	(5) 52,034		52,034	(61) 50,757	3,163	57,921
CLOSING NONCURRENT LOANS	(45) 56,803	1,963	59,807	(3) 43,424		40,424	(51) 55,849	973	56,822
OPENING & OWNER EQUITY	(57) .69	.97	.76	(0) .66	1.00	.81	(04) .69	.97	.77
CLOSING & OWNER EQUITY	(57) .69	.96	.76	(0) .67	1.00	.82	(04) .69	.96	.76
DEBT SERVICE TO GROSS FR INC	(00) .63	.56	.62	(0) .54		.51	(67) .62	.36	.61
TOTAL FARM CASH EARNINGS PLUS	(62) 3,853	2,340	5,393	(0) 8,110	5,332	11,445	(69) 3,478	2,568	6,048
NONCASH INVENTORY CHANGE	(62) 9,413	1,000	11,100	(0) 4,567	180	4,744	(69) 8,918	1,532	10,443
INTEREST PAID EQUALS	(59) 6,041	182	6,223	(6) 3,877		3,677	(66) 5,708	190	5,959
RET TO UNPAID LAB, CAP, MGMT	(62) 18,215	4,201	22,416	(0) 14,545	5,519	20,064	(69) 17,907	4,285	22,192
LESS UNPAID FAMILY LABOR	(00) 3,032		3,632	(0) 3,750		3,750	(67) 3,274		3,674
YIELDS RETURN TO CAP AND MGMT	(62) 14,730	4,201	18,991	(0) 10,795	5,519	16,314	(69) 14,633	4,285	18,624

SECTION 42 1970 ALL FARMS BY RATE RTN ON AVG INVESTMENT-OKLA. DATE PROCESSED 03/22/73 PAGE 04

	LOW GROUP BELOW 1.00			HIGH GROUP ABOVE 0.01			AVERAGE OF ALL FARMS		
	# OBS OPERATORS	OTHERS	TOT FARMS	OBS OPERATORS	OTHERS	TOT FARMS	OBS OPERATORS	OTHERS	TOT FARMS
DIVIDED BY AVERAGE CAPITAL	(62) 318,710	99,840	418,556	(0) 243,117	191,109	430,227	(04) 309,253	107,546	416,809
% RETURN ON TOTAL CAPITAL	(62) 4.61	4.20	4.51	(0) 4.40	2.88	3.73	(69) 4.03	3.98	4.46
% RETURN ON EQUITY CAPITAL	(62) 4.33	4.15	4.27	(0) 4.55	2.88	3.02	(69) 4.41	3.92	4.24
RET TO UNPAID LAB, CAP, MGMT	(62) 18,215	4,201	22,416	(0) 14,545	5,519	20,064	(69) 17,907	4,285	22,192
LESS 5 PCT INTEREST CHARGE	(62) 14,122	5,990	25,113	(0) 14,707	11,460	26,173	(69) 10,355	8,452	25,008
YIELDS RETURN TO LAB AND MGMT	(62) 407-	1,789-	2,696-	(0) 161-	5,947-	9,170-	(69) 548-	2,167-	2,815-
DIVIDED BY UNPAID LAB YRS	(00) 1.21		1.21	(0) 1.25		1.25	(07) 1.22		1.22
YIELDS RETURN PER LABOR YEAR	(00) 1,067-		2,629-	(0) 1,484-		0,440-	(67) 991-		2,857-

TABLE XV (Continued)

SECTION 43 1970 ALL FARMS BY RATE OF GAIN ON AVG INVESTMENT-AREA 6 DATE PROCESSED 03/22/73 PAGE 85

		LOW GROUP BELOW 1.80				HIGH GROUP ABOVE 6.01				AVERAGE OF ALL FARMS			
		# OBS	UNITS	POUNDS	DOLLARS	# OBS	UNITS	POUNDS	DOLLARS	# OBS	UNITS	POUNDS	DOLLARS
BEEF	OPENING INVENTORY	(57)	281	158,620	46,513.11	(6)	130	77,444	19,872.62	(64)	263	149,457	43,516.59
	PURCHASES	(57)	153	52,368	21,767.30	(6)	66	31,016	10,884.43	(64)	144	49,559	20,410.83
	SALES	(57)	218	120,366	43,517.76	(6)	103	46,694	17,843.34	(64)	205	111,907	40,343.23
	CLOSING INVENTORY	(57)	287	147,119	49,274.13	(6)	152	90,650	23,896.00	(64)	271	140,459	46,339.66
	PRODUCTION	(57)	72	56,499	24,311.49	(6)	37	29,063	10,962.28	(64)	68	53,350	22,755.49
DAIRY	OPENING INVENTORY	(17)	157	120,462	40,864.05					(18)	154	118,006	39,606.56
	PURCHASES	(17)	12	15,447	5,518.28					(18)	11	14,589	5,209.82
	SALES	(17)	47	578,743	69,452.94					(18)	47	550,328	67,320.38
	CLOSING INVENTORY	(17)	182	130,298	48,150.23					(18)	177	127,398	46,496.46
	PRODUCTION	(17)	59	973,132	71,230.82					(18)	59	945,072	69,000.45
SHEEP	OPENING INVENTORY	(1)				(6)	206	11,825	3,287.00	(8)	159	9,286	2,533.56
	PURCHASES	(1)	6		162.00	(6)	3	180	255.83	(8)	3	135	212.12
	SALES	(1)	2		67.47	(6)	105	5,328	2,899.45	(8)	80	4,174	2,224.57
	CLOSING INVENTORY	(1)	8	1,120	160.00	(6)	225	12,699	3,974.16	(8)	173	10,027	3,665.50
	PRODUCTION	(1)	4	1,120	65.47	(6)	120	6,022	3,330.78	(8)	91	4,760	2,544.44
SWINE	OPENING INVENTORY	(12)	102	23,583	6,044.69	(2)	207	40,805	9,123.55	(14)	185	26,043	6,484.70
	PURCHASES	(12)	41	2,420	1,015.11	(2)	32		4,144.52	(14)	39	2,079	1,402.17
	SALES	(12)	234	47,173	11,993.35	(2)	439	4,877	33,946.06	(14)	263	41,131	15,129.45
	CLOSING INVENTORY	(12)	158	26,185	5,411.75	(2)	279	51,880	9,450.20	(14)	176	29,650	5,986.67
	PRODUCTION	(12)	169	47,355	10,345.06	(2)	460	15,952	30,126.18	(14)	213	42,888	13,171.24
OTHER LIVE	OPENING INVENTORY	(11)	9	3,227	2,825.00	(2)	3		875.00	(13)	8	2,730	2,525.00
	PURCHASES	(11)			27.27	(2)			20.00	(13)			26.15
	SALES	(11)	2		765.97	(2)				(13)	2		646.44
	CLOSING INVENTORY	(11)	7	2,763	2,352.27	(2)	3		675.00	(13)	6	2,338	2,094.23
	PRODUCTION	(11)		463-	263.97	(2)			220.00-	(13)		392-	189.51
POULTRY	OPENING INVENTORY	(4)	6		3.12					(4)	6		3.12
	PURCHASES	(4)	18		50.51					(4)	18		50.51
	SALES	(4)			545.95					(4)			545.95
	CLOSING INVENTORY	(4)	16	33	21.62					(4)	16	33	21.62
	PRODUCTION	(4)	8-	33	513.93					(4)	8-	33	513.93
TOTAL LIVESTOCK PRODUCTION		(62)	115	527,872	43,965.24	(6)	518	40,405	24,282.40	(69)	132	309,205	42,139.59
FEED	OPENING INVENTORY	(62)	6677	645,201	12,321.97	(6)	5810	292,910	13,046.49	(69)	6746	617,621	12,450.35
	PURCHASES	(62)	2442	376,760	12,098.24	(6)	307	109,849	9,743.53	(69)	2221	348,610	11,397.58
	SALES	(62)	5188	448,182	11,127.83	(6)	16611	1464,207	23,229.50	(69)	7055	531,422	12,045.17
	CLOSING INVENTORY	(62)	6299	551,301	13,351.86	(6)	4705	202,698	12,105.98	(69)	6249	524,441	13,262.79
	PRODUCTION	(62)	13695	894,583	17,391.88	(6)	23024	1548,155	25,886.93	(69)	14490	951,600	18,039.95
	FEED DISAPPEARANCE	(62)	10327	917,666	17,332.39	(6)	7027	283,950	9,335.47	(69)	10172	801,968	16,579.92
LIVESTOCK PROD / $100 FD DIS		(62)			257.84	(6)			510.80	(69)			261.86

TABLE XV (Continued)

SECTION 44 1970 ALL FARMS BY RATE RTN ON AVG INVESTMENT-OKLA. DATE PROCESSED 03/22/73 PAGE 06

	LOW GROUP BELOW 1.80				HIGH GROUP ABOVE 6.01				AVERAGE OF ALL FARMS			
	# OBS	UNIT/ACRE	ACRES	DOLLARS	# OBS	UNIT/ACRE	ACRES	DOLLARS	# OBS	UNIT/ACRE	ACRES	DOLLARS
BARLEY	(2)	51.65	42.50	2,240.00					(2)	51.65	42.50	2,240.00
GRAIN SORGHUM	(4)	20.42	138.12	8,953.42	(1)		158.00	7,056.21	(5)	16.34	141.10	8,693.98
OATS	(2)	37.50	25.00	873.75					(2)	37.50	25.00	873.75
WHEAT	(1)	28.00	28.00	942.00					(1)	28.00	28.00	942.00
ALFALFA	(5)	90.40	90.60	5,231.28					(5)	90.40	90.60	5,231.28
BERMUDA	(1)	.80	30.00	750.00	(1)			1,120.00	(2)	.40	15.00	938.00
SILAGE	(1)	15.00	130.00	13,650.00	(1)	11.60	110.00	5,428.60	(2)	13.30	120.00	10,039.30
SUDAN	(1)			992.00					(1)			992.00
CROP PASTURE	(2)	1.30	10.00	650.00					(2)	1.00	10.00	650.00
OTHER HAY AND FORAGE	(1)			1,200.00					(1)			1,200.00
COTTON	(1)	1.10	120.00	12,781.22					(1)	1.10	120.00	12,781.22
PEANUTS	(2)		36.50	14,695.56					(2)		36.50	14,695.56
OTHER CASH CROPS	(2)		15.00	7,161.40					(2)		15.00	7,161.40
TOT ACR & VAL OF IRR-CROPS	(62)		29.34	2,553.33	(6)		43.83	2,535.13	(69)		26.56	2,523.73
BARLEY	(30)	34.74	156.46	5,345.41	(4)	40.75	201.27	7,620.95	(35)	36.07	159.02	5,536.99
CORN	(1)	16.40	110.00	2,834.50					(2)	8.20	56.00	1,441.51
GRAIN SORGHUM	(15)	8.58	74.00	1,826.36	(1)		50.00	110.00	(16)	8.00	73.06	1,719.66
OATS	(14)	42.65	51.52	1,446.64	(1)	78.90	100.00	5,057.14	(15)	45.06	54.75	1,667.34
RYE	(7)	14.48	60.64	3,167.03	(1)	34.50	6.60	227.85	(8)	16.98	53.88	2,799.63
WHEAT	(42)	27.51	247.40	8,443.07	(5)	55.16	312.22	13,921.43	(48)	28.22	250.70	8,885.85
OTHER GRAIN	(4)	13.22	70.25	1,275.75					(4)	13.22	70.25	1,275.75
ALFALFA	(26)	79.78	74.65	5,425.72	(3)	67.93	77.66	3,437.76	(30)	78.01	76.83	5,275.59
BROME	(1)			720.00					(1)			720.00
BERMUDA	(14)	14.48	97.21	2,572.71	(2)	2.50	79.00	2,534.47	(16)	12.98	94.93	2,567.93
GRASS	(4)	9.95	260.00	5,005.85					(4)	9.95	260.00	5,005.85
NATIVE	(17)	10.24	97.21	1,569.51	(1)	13.30	54.00	552.00	(19)	10.65	90.06	1,442.53
SILAGE	(4)	25.25	135.15	6,800.78					(5)	20.94	111.92	7,118.02
SUDAN	(16)	22.03	57.62	1,130.98	(1)	48.30	30.00	1,186.20	(17)	23.57	56.03	1,141.58
STRAW	(8)	7.30	4.21	1,183.95	(3)			1,288.33	(11)	5.30	5.06	1,212.42
CROP PASTURE	(30)	5.07	123.36	2,905.71	(3)		49.03	3,159.46	(33)	4.01	121.15	2,985.33
OTHER HAY AND FORAGE	(11)	8.44	96.79	475.98	(1)		23.00	4,128.00	(12)	7.74	90.64	780.31
BROMEGRA	(1)		30.00	5,092.86					(1)		30.00	5,092.86
COTTON	(18)	.23	107.88	4,052.23					(18)	.23	107.88	4,052.23
PEANUTS	(5)	.20	118.52	7,680.93					(5)	.20	118.52	7,680.93
SOYBEANS	(9)	13.96	229.44	13,130.90	(1)	12.50	235.00	10,795.77	(10)	13.82	230.30	12,915.39
OTHER CASH CROPS	(9)	1.33	322.55	9,590.30					(9)	1.33	322.55	9,590.30
DIVERTED ACREAGE	(28)	.75	128.36	10,094.26	(4)		29.02	9,208.03	(31)	.83	112.05	9,672.56
TOT ACR & VAL OF NON-IRR CRP	(62)		659.29	25,130.39	(6)		611.80	31,263.78	(69)		620.40	25,491.88
TEMP PASTURE	(1)			218.75					(1)			218.75
PERMANENT PASTURE	(36)	.10	764.71	1,317.40	(2)		477.75	3,289.45	(39)	.09	741.56	1,436.03
FENCE, ROADS, FMSTD	(4)		25.00						(4)		25.00	
TREES AND WASTE	(18)	.05	63.21	107.93					(19)	.05	62.94	102.23
OTHER DRY CROPLAND	(19)	3.74	999.57	4,339.40	(1)		170.00	750.00	(20)	3.55	958.50	4,349.93
TOT ACR & VAL OTHER LND USE	(62)		770.31	2,190.91	(6)		188.91	1,221.48	(69)		717.69	2,103.85
TOT ACR & VAL ALL LAND USE	(62)		1,454.95	29,096.64	(6)		844.35	35,040.39	(69)		1,394.66	30,119.47

SECTION 45 1970 ALL FARMS BY RATE RTN ON AVG INVESTMENT-OKLA. DATE PROCESSED 03/22/73 PAGE 07

	LOW GROUP BELOW 1.80				HIGH GROUP ABOVE 6.01				AVERAGE OF ALL FARMS			
	TOTAL FARM	/CROP ACRE	/$100 PROD		TOTAL FARM	/CROP ACRE	/$100 PROD		TOTAL FARM	/CROP ACRE	/$100 PRO	
GROSS FARM PRODUCTION	(62) 73655	139.89	100.00	(6)	99322	61.73	100.00	(69)	72259	136.29	100.00	
MACHINERY INVESTMENT	(62) 24043	39.94	35.49	(6)	20000	27.56	40.15	(69)	23947	38.70	35.67	
MACHINERY COST	(62) 15594	26.50	22.71	(6)	14662	15.04	22.97	(69)	15256	27.30	22.65	
FERTILIZER & CHEMICAL COST	(62) 4316	6.65	6.55	(6)	5108	6.60	9.05	(69)	4344	6.61	6.71	
SEED AND PLANT EXPENSE	(62) 1134	2.02	1.83	(6)	1037	1.59	2.07	(69)	1110	1.96	1.63	
FARM SIZE INDEX	(62) 31373	64.60	47.55	(6)	29062	33.67	51.30	(69)	30945	61.66	47.66	

information is more subject to bias than the wholefarm information. Since most of the results of the wholefarm comparison are a weighted average, one incorrect or unrealistic observation can bias the answer.

One of the sub-objectives of the new year-end analysis program was to eventually improve the quality of enterprise input data by improving the readability and understanding of the enterprise output. As the understanding and quality of enterprise information improves, the writing of the enterprise comparison program will become more valuable.

CHAPTER V

SUMMARY

The objectives of this study are to coordinate all program modifications to improve the readability, organization, and understanding of the Costfinder farm record system. These modifications are intended to help make Costfinder attractive to more farmers.

Research Approach

In the six years Costfinder has been in operation, many additions, deletions, and reorganizations of the program outputs have been suggested. These suggested modifications have been recorded and classified according to their purpose and the section of the output to which they apply. A list of these changes was developed that included a type representation of the modified computer output, required modification of the input data, time required to accomplish the program changes, and an estimation of the net change in the amount of paper generated by the program modification. A short questionnaire was included with the list of program modifications and given to the Area Agents. The purpose of the questionnaire was to determine: (1) Is change desired? (2) Will the farmer be willing to pay for this improvement? If so, how much? (3) What priority should be given to each of the changes? The Area Agents were encouraged to suggest changes in the type representations, or list new modifications that should be considered. All of the

preceding information was used to design and implement the programming modifications explained in this study.

Results

The programs or sections of program that were modified are organized according to their purpose (1) to facilitate credit acquisition and financial analysis, (2) to facilitate tax reporting and analysis, (3) to improve readability and understanding of the year-end analysis program. These categories correspond to chapters two through four.

The check reconciliation program provides a means of checking the accuracy of the bank statement and the input data. The program logic of the financial analysis, Section 12, was revised to print opening and closing inventory for each TI code on the same line. New calculations, percent owner equity, percent current equity, and return to equity capital were included in this section.

Modifications in the tax reporting and analysis category were given high priority by the Area Agents. Designated TI codes in the 1973 version of the Cash Flow Summary are sub-divided into GENERAL classifications. These GENERAL sub-totals allow direct transfer of the non-farm deductable expense to the appropriate section of the tax return and a more detailed listing of raised sales and current farm expenses. A new program, Livestock Purchased for Resale provides cost information on specific groups of livestock purchased for resale.

Year-end Analysis is the most important program in the Costfinder system. All the input data reported during the year is used to generate financial and production efficiency information for the fiscal year. Reorganization of the program logic is designed to reduce duplication

of results, improve the readability of the output, and reduce the amount of information printed on each page. The logic changes allow all information that applies to an enterprise to be printed on one or two consecutive pages. In this way the enterprises are printed in single file, rather than having one type of information, machinery use for example, for all enterprises printed on one page. Cost to the farmer has a great effect on the number of farmers enrolled in the Costfinder system. Program changes in this study have in some cases reduced operation costs, in other instances the new information presented will increase cost. If the improvements to the computer outputs increase the number of Costfinder cooperators, some economies of size may offset the increased operation costs.

Further Research

The kind and amount of information provided by computerized farm record systems should change as the need for financial and production efficiency information changes. Some commerical farms can effectively use sophisticated accounting information while other farmers can use and interpret only a simplified cash flow analysis. Flexibility needs to be an important factor to be considered in any research in this area.

Within the Costfinder system, a program needs to be written to compare the year-end analysis information for enterprises. The program logic needs to be similar to the Wholefarm Comparison program explained in Chapter IV. In addition to the program modifications, emphasis needs to be placed on educational programs designed to increase the farmer's utilization of the Costfinder output.

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