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An Economic Evaluation of Six Dairy Herd Expansion Alternatives By Anthony Groble Department of Agricultural and Applied Economics University of Minnesota

# Department of Agricultural Economics

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January 1980

AN ECONOMIC EVALUATION OF SIX DAIRY HERD EXPANSION ALTERNATIVES\*

Anthony Groble\*\*

Staff Papers are published without formal review within the Department of Agricultural and Applied Economics.

- \* A paper completed as a Plan B project paper in partial fulfillment of the requirements for the degree of Master of Science in Agricultural and Applied Economics.
- \*\* Research Specialist, Department of Agricultural and Applied Economics, University of Minnesota. The author is indebted to Professor Earl Fuller for his guidance during the course of this study.

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### AN ECONOMIC EVALUATION OF SIX DAIRY HERD EXPANSION ALTERNATIVES\*

#### INTRODUCTION

Previous work during the last fourteen years has investigated the managemental problems with which a farmer must deal during the expansion process. Little work, however, has dealt with the economic implications of these problems.

This study investigates the economic implications of various problems encountered in a dairy farm expansion. Six expansion alternatives for a typical Minnesota dairy farm doubling its herd size from 40 to 80 cows are economically simulated and compared.

Using information derived from the St. Cloud area and the Winona area <u>1977 Farm Business Management Annual Reports</u>, an above average dairy farm is developed. The farm consists of 201 tillable acres, 40 milk cows plus replacements, and an average milk production of 15,400 pounds per cow. Cows are milked in a stall barn with a pipeline milker. Barn cleaning and manure hauling are daily chores.

Both rapid and gradual rates of expansion are simulated. Rapid expansion is defined as attaining the 80 cow herd size by the first year of expansion by purchasing springing heifers and yearlings. In the gradual expansion situation, some cattle are also bought initially but the desired herd size is not reached until the end of the fourth year of expansion. The following alternatives are investigated for both rapid and gradual rates of expansion:

(1) Assuming that the present dairy facility is still useful, similar housing, milking and feeding systems are added to accomodate the increase in herd number.

(2) Assuming that the present dairy facility must be replaced, a new tie stall barn with pipeline milking and a new feeding system is built.

<sup>\*</sup> This paper is a contribution to Minnesota Agricultural Experiment Station Project No. 14-36, Management Information Systems For Minnesota Farm Firms.

(3) Assuming that the present dairy facility must be replaced, a new cold free stall barn with a parlor and a new feeding system are built.

In all of the above cases a switch is made from a daily clean and haul manure system to a system involving a piston pump and a six-month storage basin.

For the first five years of expansion, monthly cash flows for each alternative are constructed. For the remainder of the 30-year planning span, annual cash flows are estimated. The alternatives are compared on the basis of: (1) managemental effects during the expansion process, (2) investment costs involved, (3) labor requirements, (4) liquidity effects and (5) after-tax internal rate of return.

An economic approach which is more positive than normative is taken; that is, implied resource use reflects that group of Minnesota dairy farmers studied and does not necessarily imply optimal resource allocation. While recognizing that the problems and costs involved during an expansion are site specific, this study presents a conceptual model and a methodology of use to owners/managers in making more profitable and satisfactory decisions.

### Trend In Farm Size

A considerable decline of dairy farms in Minnesota occurred between 1967 and 1976, from 62,000 to 31,000 farms. During the same period, average herd size increased from 17 to 28 cows.  $\frac{16}{}$  This decline in farm number and a shift to larger, more specialized dairy operations has been the trend not only in Minnesota but nationally as well.  $\frac{19; 27}{}$ 

Although the national trend since 1960 has been toward free stall systems, Minnesota dairymen have been building more new stanchion or tie stall barns than free stall barns. $\frac{3}{2}$ 

The following table contains a breakdown of the number of Minnesota DH1 dairymen who either extensively remodeled their old facilities or built new ones since 1967. The percentage of new free stall barns has decreased from 42 percent of the total in 1967-68 to 24 percent of the total in 1975-76.

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	Stall	Free S	Stalls		Percent
Year	Barns	Warm	Cold	Total	Free Stalls
1967-68	73	23	29	125	41
1969-70	102	21	34	157	35
1971-72	157	22	51	230	32
1973-74	252	19	52	323	25
1975-76	132	16	26	174	24
Total	716	101	192	1,009	29

Table 1.	Number	of	new	or	exter	nsively	remodeled	housing	facilities	ín
	Minneso	ota	DH 1	her	rds. ł	ov vear	s.3/			

### Reasons For Expansion

Brake, et. al., surveyed 19 farmers who expanded their operations by doubling their herd size. $\frac{7}{}$  Mich. 1968 The study showed that almost all farmers who expanded their operations did so to increase income. Several farmers expanded to support a family partnership. Other reasons for expanding included making use of excess labor or land.

It was found that in doubling herd size, net income per cow dropped 18 percent but net income per farm increased 66 percent. This implies that net income increased not because of the lowering of average cost of production but because of increased volume.

Buxton and Jensen, however, showed that economies of size exist in dairying and that the size of the dairy herd must be increased to fully utilize new developments in housing, milking and feeding systems that typically require large investment expenditures. $\frac{9}{Minn.1968}$ 

Willett, et. al., suggest the following developments which have encouraged size economies in dairying:  $\frac{33}{}$  Wisc. 1972

(1) An increase of more productive and capital intensive technology. When the cost of capital falls relative to labor costs, as it has in the last few years, there is an incentive to substitute mechanized technology for labor. Higher overhead costs must be spread over a greater volume to reduce per unit costs.

(2) <u>Thin profit margins per cwt. of milk produced</u>. Costs of production have increased along with higher milk prices, causing profit margins to remain narrow. As a result, dairymen are forced to generate more volume to maintain or increase their income.

(3) <u>Better dairy farm managers</u>. Today's dairyman is better educated than his predecessor and is better equipped to handle the complexities of running a large operation.

### Problems Occurring In Farm Expansion

"Get better before getting bigger" has become cliche' advice to farmers considering expansion, but a dairyman's chance for a financially successful herd expansion is best if he is in the top one-third of his herd size group when ranked by a profit measure such as return to management. $\frac{33}{}$ 

Figure 1, from a Wisconsin study, illustrates that milking more cows is not necessarily the cure for income problems.

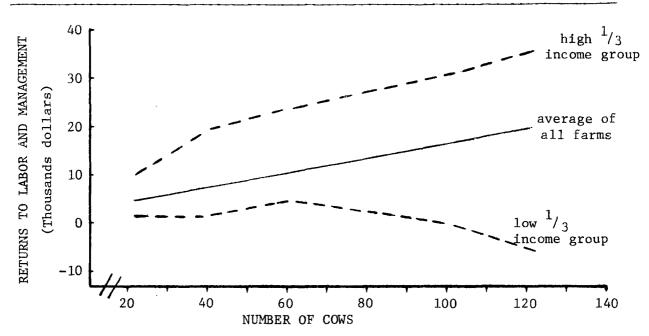


Figure 1. Average returns to labor and management per farm by income group and herd size, Wisconsin Electronic Farm Records Program, 1971.33/

Financial and managemental problems are both reported in two Michigan studies. 7/ Mich. 1968; 29/ Mich. 1974

In the most recent study, 47 farms with minimum additions of 40 cows were investigated; 18 rapid expansions and 29 gradual expansions. $\frac{29}{}$  Although not significant, there was a decrease in management income during the first two years of expansion, particularly in the rapidly expanding

herds. Because of the differences in herd size between the rapid and gradual expansion farms, objective determination of the best rate of expansion was not possible.

These results are similar to those in the earlier Michigan study. $\frac{7}{}$ 

Wells reported these observations by lenders who have financed herd expansions:  $\frac{30}{}$ 

(1) Herd size increased faster than anticipated. By failing to keep the lender informed of his progress and credit needs, problems were created in providing necessary credit when needed.

(2) Dairymen used split lines of credit, thus compounding repayment problems.

(3) Management ability did not increase with herd size.

### The Relationship Between Herd Expansion, Barn Type and Milk Production

Milk sales are the major source of income to a dairyman, therefore, the effect that expansion and/or a switch in milking and housing systems has on milk production is of major concern. However, the results of most of the work done in this area remain inconclusive.

Studies have included the relationship of milk production with a change in barn type,  $\frac{33}{}$  herd size  $\frac{8;20;22}{}$  and the interaction of the two $\frac{26}{}$ .

Meek studied the relationship between housing and milking systems and milk production and found no production loss for either parlor users or cows housed in either loose housing or free stalls.  $\frac{20}{N.Y.}$ , 1965 A study cited by Wiggens and Van Vleck also indicated that average production for herds that switched to free stalls from stanchion barns did not decline and that roughly equal numbers of herds had a higher average as had a lower average in comparison with the years before the change in systems, even with increasing number of cows.  $\frac{32}{N.Y.}$  1970

Likewise, a 1968 West Virginia study cited by Meller, et. al., concluded that the type of housing and milking system and the size of herd were not significantly related to production. $\frac{22}{}$ 

Brown and White, however, in investigating changes in herd size and initial herd size with milk production concluded that yearly production is

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affected by a change in herd size.  $\frac{8}{Va. 1973}$  Generally herd size changes in large herds had a much greater influence on production than a similar rate of change in smaller herds.

Recent Minnesota and Michigan studies also concluded that herd expansion results in at least some initial loss in production.

The 1978 Minnesota study was designed to determine the effects of changing barn types and herd expansion on milk production and income over feed costs. $\frac{26}{}$  One hundred ninety-two Minnesota dairy farms had made one of the following system changes: (1) stanchion to tie stall (STS), (2) loose housing to cold free stall (LCFS), (3) stanchion to cold free stall (SCFS) or (4) stanchion to warm free stall (SWFS) were studied. Herd growth and milk production were followed through four years after the change occurred.

It was found that with the addition of 10 cows, average production increased each year in the STS and LCFS switches. Both the SWFS and SCFS switches experienced a loss in production the year of expansion but the pre-expansion level of production was recovered within two years.

In a 20-cow expansion, average production dropped in all but the STS switch. Initial production was recovered within two years for the LCFS and SCFS switches and within four years in the SWFS switch.

When 30 cows were added, average production dropped in all cases the year of expansion. The production loss was recovered within two years of the STS or LCFS switch and by four years in the SWFS and SCFS switch.

The expected changes in production for various system switches at three rates of growth are illustrated in table 2.

Type Of Change In Dairy System												
NUMBER OF	·	STS			LCFS	· · · · · · · · · · · · · · · · · · ·		SWFS			SCFS	
COWS ADDED:	<u>10</u>	20	30	<u>10</u>	<u>20</u>	<u>30</u>	<u>10</u>	20	30	10	20	30
Year of				-pounds c	hange	in 3.5%	FCM pr	oduced	per co	ow		
switch	+49	+11	-38	+46	-294	-616	-85	-211	-336	-47	-132	-198
2 years after switch	+348	+392	+433	+294	+169	+52	+5	-35	-94	+258	+120	-19
4 years after switch	+646	+773	+906	+504	+631	+690	+96	+141	+148	+564	+372	+161

Table 2. Calculated changes in 3.5 percent fat-corrected milk from initial production for a 40 cow herd at three rates of growth.  $\frac{26}{}$ 

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In the LCFS, SWFS and SCFS switches, production losses were minimized for a 30 cow expansion when 10 cows were added every two years rather than adding all 30 cows in the first year. Work done at Michigan also concluded that rapidly expanded farms experienced a greater degree of production loss than the gradually expanded farms. $\frac{29}{2}$ 

The Michigan study found that farms undergoing expansion experienced the following problems:  $\frac{29}{}$ 

(1) An average annual decrease of 941 pounds of milk production per cow during either the first or second year after expansion.

(2) An average increase of 2.4 percent in the culling rate during the early years of expansion.

(3) An increase of 8 percent in calf mortality during the first or second year after expansion.

(4) An increase of 119 percent in identified reproductive problems during the early years of expansion.

(5) An increase of 13.1 percent in veterinarian service per cow during the early years of expansion.

### METHODS AND PROCEDURES

The financial success of an investment depends not only on long range profitability but also on how cash flow is affected. This study involves a nine-step approach which is applicable in considering any expansion alternative. This procedure results in the determination of both long range profitability as measured by the after-tax internal rate of return (IRR) of the investment and liquidity effects.

The nine steps for each alternative are:

- (1) Determination of present financial and managerial status.
- (2) Estimation of the managemental effects of expansion alternatives.
- (3) Construction of the livestock inventory for the expanded herd.
- (4) Determination of the feed requirements for the expanded herd.
- (5) Identification of the sources of the feed requirements.
- (6) Estimation of the investment costs involved in expansion.

(7) Determination of labor requirements.

(8) Projection of monthly and annual cash flows.

(9) Determination of liquidity effects and long range profitability.

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The benchmark data used in this study is from a number of sources. The description of the current farm situation is based on summarized <u>Farm Business Management</u> records.  $\frac{34}{}$  Estimates of managemental effects are based on a recent Minnesota study,  $\frac{26}{}$  the <u>1978 DHI Annual Summary</u>,  $\frac{23}{}$ and consultation with Minnesota dairy experts.  $\frac{4;27}{}$  Investment costs were supplied by area contractors and equipment and machinery dealers.

### Determination Of Present Financial and Managerial Status

Net worth is the difference between the total value of assets and the total value of liabilities at a given point in time. A yearly net worth statement aids in:

- (1) Determining if:
  - (a) A manager has financial control of a buiness.
  - (b) Present assets provide sufficient security for the liabilities owed.
  - (c) The business has the financial strength to use more borrowed funds.

(2) Providing creditors with financial data needed to evaluate a business on a historical basis.

(3) Providing information necessary in the development of other financial measures such as cash flow projections.

The net worth statement of the original 40 cow farm used in this study is derived from the December 31, 1977, average net worth statement for dairy farms with 35-45 cows ranking in the upper 20 percent in returns to labor as drawn from the St. Cloud area and Winona area <u>Farm Business</u> <u>Management Annual Reports</u>. The net worth statement is adjusted to December 31, 1978, by taking new capital purchases into account and inflating values by the Consumer Price Index.

Total productive livestock	\$32,621	
Crop, seed and feed	22,538	
Total power, machinery and equipment	34,112	
Land	52,377	
Buildings, fences, etc.	33,294	
TOTAL FARM CAPITAL		\$174 <b>,</b> 942
Nonfarm assets, cash	13,031	
Dwelling	12,074	
TOTAL ASSETS	12,014	\$200,637
		9200,037
Real estate mortgages	39,462	
Chattel mortgages	29,705	
Notes	5,467	
Accounts payable	2,531	
TOTAL LIABILITIES		\$ 77,165
NET WORTH		\$123,472
······		

Table 3. December 31, 1978 net worth statement for benchmark 40 cow dairy farm.

The January 1, 1979 benchmark farm size is 274 acres with 201 tillable acres. Present enterprises, the size of each enterprise and per unit cash costs of production are shown in table 4.

Table 4.	January 1, 1979 enterprises, size and per unit cash costs
	of production of each enterprise for original 40 cow dairy
	farm. <u>1;2;34</u> /

	Corn	Haylage Full Prod.	Haylage Establish	Corn Silage	Dairy
Yield per unit	110 bu./A	7.6 ton/A	4.5 ton/A	18.2 ton/A	154 cwt./cow
Number of units	136	27	9	29	40
Cash cost of production per unit*	\$70	\$15	\$94	\$70	\$221

<sup>•</sup> Cash costs for crops include: seed, fertilizer, chemicals and insurance. Cash costs for livestock include: purchased feed, breeding, health, supplies and marketing expenses. Estimation Of Managemental Effects

The estimates of the managemental effects which occur during the expansion process are based on a recent Minnesota study,  $\frac{26}{1978}$  DHI data for herds at the given production level,  $\frac{23}{1978}$  and consultation with Minnesota dairy management experts.  $\frac{4;27}{1978}$ 

It is assumed that the original herd consists of 40 milk cows and 36 replacement heifers, evenly distributed according to age. The cows are milked in a stall barn which is typical for Minnesota dairy farms. Average freshening age for heifers is 28 months and the average calving interval is 13 months. Culling rates and mortality rates for owned and purchased cattle initially increase and then return to the pre-expansion rates within four years of initial expansion. Changes in milk production and culling rate depend on speed of expansion and type of housing switch. For the stable 40 cow dairy farm, production increases steadily at a little over 200 pounds per year. In all cases, milk production stabilizes in the fourth year after expansion begins.

Estimated culling rates, mortality rates and milk production for each of the alternatives are illustrated in tables 5 and 6.

	Ye	ar Into	Expansio	<u>n</u> *
	1	2	3	4
Cull rate for current cows		perce	nt	
Benchmark - 40 cow herd	26	26	26	26
Slow expansion	26	30	28	26
Rapid tie stall to tie stall	26	30	28	26
Rapid tie stall to free stall	26	35	30	26
Cull rate for current heifers	8	10	8	8
Cull rate for purchased heifers	10	8	8	8
Mortality rate for replacements				
0-6 months	14	20	17	14
7 months - breeding	1	3	2	1

Table 5. Culling rates and mortality rates for current and purchased cattle. 4;23/

Year 1 = Year expansion begins. Year 2 = Second year of expansion process. Year 3 = Third year of expansion process. Year 4 = Fourth year of expansion process.

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						5	6.271
Table 6.	Expected	milk	production	changes	by	year	20,27/

### Change In Dairy System

### Projection Of Livestock Inventories

Investment costs for the new or additional facilities and feed and labor requirements depend on herd size. Based on the calving interval and the expected changes in culling and mortality rates, a year-by-year cattle inventory for the first five years is estimated. Constructing this livestock inventory helps in planning for labor needs, cropping changes and changes in cash inflow and outflow.

The livestock inventories for the first five years of each of the alternatives are listed in table 7.

In the rapid expansion situations 40 bred heifers and 13 yearling heifers are purchased in the year expansion begins. In the gradual expansion situations, 12 bred heifers and 4 yearling heifers are purchased the year expansion begins. The desired herd size of 80 cows is reached in the first year of the rapid expansion and the fourth year of the gradual expansion.

	Year Into Expansion				
Type of Animal	<u>1</u>	2	$\frac{3}{5}$	<u>4</u> 1	5
BENCHMARK 40 Cow Herd		number	of 1:	ivestock	
Total cows Total replacements Bull calves sold Bred heifers sold Cull cows sold	40 41 20 3 10	40 42 20 7 12	40 40 19 11 12	40 40 20 9 12	40 40 20 12 12
RAPID EXPANSION Tie Stall To Tie Stall					
Total cows Total replacements Bull calves sold Bred heifers sold Cull cows sold	82 74 43 2 10	80 75 31 9 16	80 73 33 13 12	80 75 43 18 12	80 77 42 19 12
RAPID EXPANSION Tie Stall To Free Stall					
Total cows Total replacements Bull calves sold Bred heifers sold Cull cows sold	82 74 43 2 10	80 76 31 8 17	80 74 33 13 13	80 74 42 20 13	80 77 42 19 13
GRADUAL EXPANSION Tie Stall To Tie Stall or Tie Stall To Free Stall					
Total cows Total replacements Bull calves sold Bred heifers sold Cull cows sold	56 52 29 0 10	62 61 31 0 12	72 60 29 0 12	80 72 39 2 13	80 78 44 10 15

### Table 7. Livestock inventories for first five years.

### Determination Of Feed Requirements

Annual feed requirements were calculated for one cow unit (one cow, associated young cattle equaling one replacement) using NRC values for feedstuffs.  $\frac{24}{}$  Once feed requirements were determined, they were easily converted into acreage requirements for a given herd size. The annual feed requirements (including 12 percent wastage loss) for one cow unit are listed in table 8. The acreage requirements for 40, 60 and 80 cow herd sizes are listed in table 9.

Table 8. Annual feed requirements (including 12 percent loss) for one cow unit; based on requirements for 1,350 pound cow producing 3.6 percent butterfat milk.

Type Of Feed							
Production Level lbs. milk/day	Corn Silage ton	Haylage ton	Corn Eq. bu.	$\frac{\text{SBM}}{\text{cwt}}$ .			
48	12.9 12.9	5.8 5.8	117 120	9.2 9.4			
52 54	12.9	5.8	126 132	9.8 10.1			

Table 9. Acreage requirements for various herd sizes.

Crop	Yield/ Acre	Annual Req. /Cow Unit	Herd S	ize (Cow U <u>60</u>	Units) 80
Corn silage	18 ton	12.9 ton	29	44	58
Hay establish	4.5 ton .	<	9	14	17
Haylage	7.6 ton •	> 5.8 ton	27	41	54
Corn grain	110 bu.	120-132 bu.	44-48	64-72	86-96
TOTAL ACREAGE REQUIRED			109-113	162-170	216-226
TOTAL LAND BASE: 201 Tillable acre	28				
and a second					

### Identification Of Feed Sources

At the 40 cow herd size corn is grown as a cash crop on tillable land not used to produce feed for the herd. By the time the herd expands to 80 cows, more land is required than is available. At some point prior to this a decision must be made whether to buy the needed feed or purchase the additional land. In this study, additional grain is purchased while the farmer grows all the required forage and some grain. The current inventory of corn is approximately 6,778 bushels. If kept for feed and not sold, grain does not have to be purchased until the third year in the rapid expansion situations. In the gradual expansion situations, herd growth is such that corn is grown as a cash crop until the fourth year when corn must be purchased. The price used for corn is \$2.50 per bushel.

Feed purchases in years 3, 4 and 5 for each of the alternatives are listed in table 10.

	Year 3		Year	<u>     4                               </u>	Year	Year 5		
Alternative	Amount (bu.)	<u>Value</u> (\$)	Amount (bu.)	<u>Value</u> (\$)	Amount (bu.)	<u>Value</u> (\$)		
RAPID EXPANSION								
Tie stall to tie stall	771	1,929	2,305	5,764	2,305	5,764		
Tie stall to free stall	78	194	1,826	4,564	1,826	4,564		
GRADUAL EXPANSION								
Tie stall to tie stall	0	0	520	1,299	2,305	5,764		
Tie stall to free stall	0	0	113	281	2,305	5,764		

Table 10. Feed purchases for the expanded herd.

### Estimation Of Investment Costs

The construction costs involved in a dairy enterprise expansion are influenced by, among others:

- (1) The degree of obsolecence of the present facilities.
- (2) The condition of the present facilities and/or their alternative uses.
- (3) The location of the present facilities.
- (4) The farmer's ability to do some part of the construction.

As stated previously, if the present dairy facilities are assumed useful, the construction costs involved are for similar housing, milking and feeding systems which are added to the present facilities to accomodate the increase in herd number. If the present dairy facilities must be replaced, two alternative systems are investigated. Either a new tie stall barn with pipeline milking and a new feed storage and handling system are built or a new cold free stall barn with parlor and a new feed storage and handling system are built. In all alternatives, a switch is made in the manure system to a manure system involving manure removal via a piston-pump and six month basin storage. Haylage and silage are fed in all situations, thus requiring more silos than would be necessary if baled hay were fed but allowing a greater degree of automation.

For the purposes of the study, all work is assumed to be contracted out. Investment cost data was obtained from area contractors and equipment dealers.

Providing adequate calf and heifer facilities is quite an important aspect of herd expansion which is often overlooked. The style and costs of possible replacement facilities vary from calf hutches to environmentally controlled units, therefore they are not specifically included in this analysis. Two approaches are taken: (1) the cash balance is summed from year to year; from this annual costs for specific replacement facilities can be subtracted and (2) when the IRR for each alternative is determined, a sensitivity table is provided which allows for differences in the original investment.

The rapid expansion situations achieve the desired herd expansion in the first year by purchasing cattle. In the gradual expansion situations,

full expansion is not achieved until near the end of the fourth year because growth is primarily dependent on within herd replacements, although some cattle are purchased initially.

In all cases, building starts in September of year 1 (1979). In the rapid expansion situations, facilities for the entire expanded herd are completed by the end of October. Heifers are bought to freshen in October and November. In the gradual expansion situations, construction of facilities is in two phases. The first phase is in September-October of year 1 (1979), providing facilities to accomodate 60 cows. Also, in the first phase manure storage and bulk tank are purchased to accomodate the fully expanded 80 cow herd. Facilities for the fully expanded herd are completed in September-October of year 3 (1981) when herd size is approximately 70 cows.

In the tie stall alternatives, when herd expansion is completed, the number of stalls in the barn equal the total number of cows. In the cold free stall alternatives, when herd expansion is completed, there is approximately 15 percent overcrowd; that is, the number of stalls is approximately equal to the average number of cows in milk.

As the size of facilities increase, average construction cost per cow decreases. This is due to the fixed costs involved in most construction ("fixed costs" refer to the construction costs involved independent of size). The effects of these fixed costs are that: (1) an increase in size of facilities is usually associated with less than a proportionate increase in construction costs and (2) when facilities are constructed in stages, as in the gradual expansion alternatives, some fixed construction costs are incurred at each stage; therefore, the total construction costs incurred for a given size facility exceed the construction costs incurred when facilities are constructed in one stage, as in the rapid expansion situations.

The construction costs, listed by component, for each alternative are found in table 11. Annual costs, expressed as a percent of the total costs, are found in table 12. Table 13 contains the investment costs for the cattle purchased.

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		<u></u>	<b>1</b>	
			System	
Speed Of Expansion	Component	Tie Stall Addition	New Tie Stall	New Free Stall
Rapid	Facilities Cattle	\$105,136 44,500	\$207,309 <u>44,500</u>	\$175,385 44,500
	Total	\$149,636	\$251,809	\$)19,885
Gradual	Facilities - Year l Year 3 Cattle	\$ 70,518 42,218 13,400	\$172,692 42,218 13,400	\$151,310 30,800 13,400
	Total	\$126,136	\$228,300	\$197,510

# Table 11. Total investment costs involved for various expansion alternatives.

Table 11a. Investment and overhead costs for a rapid expansion to a tie stall addition to present facilities.

	Invest.	Assumed	Annual Over	head Costs
Component	Cost	Deprec.	Repairs	Insurance
Building	\$ 27,750	\$	\$	\$
Concrete for building Tie stalls	15,250 3,520	2,359.70	943.90	707.91
Wiring, plumbing	674			
Bulk tank	8,732	873.20	349.30	131.00
Milking equipment (add.)	1,880	235.00	75.20	28.20
Silo: 20' x 70' Silo: 18' x 50'	$\frac{12,802}{8,160}>$	1,048.10	209.00	314.40
Silo unloaders: 20' 18'	$_{3,733}^{3,733}$ >	734.80	367.50	110.23
Feed bunk (add.) Auger for feed bunk (add.)	1,532 1,280	107.60	84.40	42.18
Manure transfer pump	7,796	779.00	389.80	116.94
Gutter cleaner (add.)	1,400	116.00	70.00	21.00
Manure basin	7,012	350.00	70.10	105.20
Total	\$105,136	\$ 6,685.00	\$2,559.00	\$1,577.00

	Invest.	Assumed An	Assumed Annual Overhead Cos			
Component	Cost	Deprec.	Repairs	Insurance		
Milk house Building	\$ 11,300 52,050	\$	\$	\$		
Concrete for building Tie stalls	29,600 7,040	5,239.50	2,096.00	1,571.85		
Wiring, plumbing Bulk tank	4,799 <b>*</b> 8,732	873.20	349.30	131.00		
Silos: 18' x 50' (2) 20' x 70' (2)	16,320 25,604	> 2,096.00	419.25	628.80		
Silo unloaders: 18' (2) 20' (2)	7,230 7,466	> 1,469.60	734.80	220.45		
Feed bunk Auger for feed bunk	3,210 4,570	> 521.25	233.40	116.70		
Manure transfer pump	7,796	779.60	389.80	116.94		
Gutter cleaner Manure basin	5,749 7,012	477.15 350.60	287.45 70.10	86.25 105.20		
Milking equip. (pipeline)	8,831	<u>\$ 1,103.85</u>	441.55	\$ 132.45		
Total	\$207,309	\$12,911.00	\$5,021.00	\$3,110.00		

# 11b. Investment and overhead costs for a rapid expansion to new tie stall facilities.

### 11c. Investment and overhead costs for a rapid expansion to new free stall facilities

	Invest.	Assumed A	nnual Overh	ead Costs
Component	Cost	Deprec.	Repairs	Insurance
Free stall building		\$	\$	\$
Concrete for building	9,658 🔪			
Free stalls	9,100	> 3,129.20	1,251.00	1,148.85
Plumbing, wiring	826			
Parlor building, inc. conc.	19,419 🖌			
Double-4herr.w/grain fd.	14 <b>,00</b> 0	1,750.00、 873.20	1 0/7 00	121 00
Bulk tank	8,732	873.20	> 1,047.00	131.00
Silos: 18' x 50' (2)	16,320 🔨	2 004 00	(10.00	(00.00
20' x 70' (2)	25,604	> 2,096.00	419.20	628.90
Silo unloaders: 18' (2)	7,230 -	1 / ( 0 / 0		
20' (2)	7,466	1,469.60	734.90	120.46
Feed bunk	1,631	108.70		
Auger feeder for bunk	4,250	283.30	176.40	88.20
Manure transfer pump	7,796	799.60		
Automatic scraper	8,262	826.20	802.90	300.87
Cross conveyor	1,492	149.20	74.60	22.40
Concrete for manure system	3,000	150.00	30.00	45.00
Manure basin	7,012	350.60	70.10	105.20
			70.10	103.20
Total	\$175 <b>,</b> 385	\$11,966.00	\$4,607.00	\$2,631.00

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	Invest.	Assumed Ar	nnual Overhe	ead Costs
Component	Cost	Deprec.	Repairs	Insurance
Building	\$ 17,100	\$	\$	\$
Concrete for building Tie stalls	8,200	> 1,369.90	547.90	411.00
Wiring, plumbing	337			
Bulk tank	8,732	873.20	350.00	131.00
Silo: 20' x 70'	12,802	640.10	128.00	192.03
Silo unloader	3,733	373.30	186.70	56.00
Milking equipment (add.)	940	117.50	37.60	14.10
Peed bunk (add.)	766	51.00	23.00	11.45
Auger for feed bunk (add.)	640	4.2.70	19.20	9.60
Manure transfer pump	7,796	779.60	389.80	176.94
Gutter cleaner (add.)	700	58.40	35.00	10.50
Manure basin	7,012	350.60	70.10	105.20
Total	\$ 70,518	\$ 4,657.00	\$1,787.00	\$1,058.00

11d. Investment and overhead costs for a gradual expansion to a tie stall addition to present facilities - stage 1

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Gradual Expansion via a tie stall addition to present facilities - stage 2.

	Invest,	Assumed Ar	Assumed Annual Overhead Costs					
Component	Cost	Deprec.	Repairs	Insurance				
Building	\$ 17,100	\$	Ş	\$				
Concrete for building Tie stalls	8,200 1,760	> 1,369.90	547.60	411.00				
Wiring, plumbing	337							
Silo: 18' x 50'	8,160	408.00	81.60	122.40				
Silo unloader: 18'	3,615	361.50	180.80	54.23				
Milking equipment (add.)	940	117.50	37.60	14.10				
Feed bunk (add.)	766	51.00	23.00	11.50				
Auger for feed bunk (add.)	640	42.70	19.20	9.60				
Gutter cleaner (add.)	700	58.40	35.00	10.50				
Total	\$ 42,218	\$ 2,409.00	\$ 926.00	\$ 633.00				

	Invest.	A	Assumed Annual Overhead Costs					
Component	Cost		Deprec.	Repairs	Insurance			
Milk house	\$ 11,300	\$		\$	\$			
Building Concrete for building	41,400 22,550	$\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{\mathbf{$	4,249.65	1,699.85	1,274.90			
Tie stalls	5,280 4,463			-				
Wiring, plumbing Bulk tank	8,732		873.20	349.30	131.00			
Silo: 18' x 50' 20' x 70' (2)	8,160 25,604	>	1,688.20	338.00	506.50			
Silo unloaders: 18' 20' (2)	3,615 7,466	•	1,108.10	554.00	166.23			
Feed bunk Auger for jeed bunk	2,444 3,930	>	427.05	191.20	95.60			
Manure transfer pump	7,796		779.60	389.80	176.94			
Gutter cleaner	5,049		419.10	252.45	75.75			
Manure basin	7,012		350.60	70.10	105.20			
Milking equipment (pipeline)	7,891	<b>-</b> -	986.40	394.55	118.35			
Total	\$172,692	\$	10,882.00	\$4,238.00	\$2,590.00			

11e.	Investment and overhead	l costs	for	а	gradual	expansion	to	new	tie
	stall facilities - stage	2 1							

Gradual expansion to new tie stall facilities - stage 2.

	Invest.	Assumed An	nual Overhe	ad Costs
Component	Cost	Deprec.	Repairs	Insurance
Building	\$ 17,100	\$	\$	\$
Concrete for building Tie stalls	8,200 1,760	> 1,369.00	547.90	411.00
Wiring, plumbing	337	(		100 (0
Silo: 18' x 50' Silo unloader: 18'	8,160 3,615	408.00 361.50	81.60 180.80	122.40 54.23
Milking equipment (add.)	940	117.50	37.60	14.10
Feed bunk (add.)	766	51.00	23.00	11.50
Auger for feed bunk (add.)	640	42.70	19.20	9.60
Gutter Cleaner (add.)	700	58.40	35.00	10.50
Total	\$ 42,218	\$ 2,409.00	\$ 926.00	\$ 633.00

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Invest. Assumed Annual Overhead Costs						
Component	Cost	Deprec.	Repairs	Insurance		
Free stall building Concrete for building	\$ 18,447 7,366	\$	\$	\$		
Free stalls Plumbing, wiring	8,415	2,619.90	1,048.00	1,024.65		
Parlor building, inc.conc. Double-4 herr.w/grainfd. Bulk tank	19,419 14,000 8,732	1,750.00 873.20	1,049.00	153.40		
Silos: 18' x 50' 20' x 70' (2)	8,160 25,604	1,688.20	338.00	506.50		
Silo unloaders: 18' 20' (2)	3,615 7,466	1,108.10	554.00	166.23		
Feed bunk Auger feeder for bunk	1,165 3,610	318.40	143.30	54.15		
Manure transfer pump Automatic scraper	7,796 8,262	779.60 826.20	802.90	300.88		
Cross conveyor	1,492	149.20	74.60	22.40		
Concrete for manure system	2,000	100.00	20.00	30.00		
Manure basin	7,012	350.60	70.10	105.20		
Total	\$151,300	\$10,564.00	\$4,099.00	\$2,270.00		

11f.	Investment	and	overhead	costs	for	а	gradual	expansion	to	new	free
	stall faci	liti	es - stage	1.							

Gradual expansion to new free stall facilities - stage 2.

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	Invest.	st. Assumed Annual Overhead Co				
Component	Cost	Deprec.	Repairs	Insurance		
Free stall building	\$ 10,600	\$	\$	\$		
Concrete work	3,300	833.00	333.40	249.90		
Free stalls	2,600		555.40	243.30		
Plumbing, wiring	161 -					
Silo: 18' x 50'	8,160	408.00	81.60	122.40		
Silo unloader: 10'	3,615	361.50	180.80	54.23		
Feed bunk	460	30.70 -	> 33.00	6.90		
Auger feeder for bunk	640	42.70 -	<b>S</b> 33.00	9.60		
Manure scraper w/conc. work	1,264	76.40	23.20	18.96		
Total	\$ 30,800	\$ 1,753.00	\$ 652.00	\$ 462.00		

Component	Depreciation	Repairs	Insurance
Free stall building	5.0	2.0	1.5
Tie stall building	5.0	2.0	1.5
Concrete for barns	5.0	2.0	1.5
Parlor building	5.0	2.0	1.5
Milking equipment	12.5	5.0	1.5
Bulk tank	10.0	4.0	1.5
Silo, concrete stave	5.0	1.0	1.5
Silo unloader	10.0	5.0	1.5
Feed bunk	6.7	3.0	1.5
Auger feeder for bunk	6.7	3.0	1.5
Gutter cleaner	8.3	5.0	1.5
Automatic scraper	10.0	5.0	1.5
Manure transfer pump	10.0	5.0	1.5
Manure basin	5.0	1.0	1.5

Table 12. Assumed annual costs as a percent of total investment costs.\*

\* Real estate taxes are assumed to be .7 percent of the value of all structures, excluding equipment.

		Speed Of 1	Expansion			
	Gradu	al	Rapi	Rapid		
	Number		Number			
Cattle Type	Purchased	Value	Purchased	Value		
Bred heifers	12	\$11,400	40	\$38,000		
Yearling heifers	4	2,000	13	6,500		
Total	16	\$13,400	53	\$44,500		

### Table 13. Purchased cattle investment.

### Determination Of Labor Requirements

Labor requirements depend on the number of cattle, cropping pattern and technologies employed by the farmer. Labor requirements change with the expansion of the herd, the change in cropping pattern to greater production of forage, the elimination of daily manure hauling and with the change in milking technologies.

For most chores, there is both a fixed and an added labor requirement per cow. The fixed labor requirement refers to the amount of time that is involved in doing a chore independent of the number of livestock. The added labor requirement is that requirement associated with the addition of another head of livestock. Therefore, an increase in herd size is usually associated with less than a proportionate increase in labor requirements for the herd.

For the benchmark 40 cow herd, some seasonal labor is hired in the spring and fall. In the gradual expansion situations, hired labor expenses increase until year 4 (1982), at which point full-time help is employed. In the rapid expansion situations, full-time help is hired as of January in year 2 (1980). The annual salary for full-time labor is \$10,800 in each alternative.

Seasonal distribution and costs of the hired labor are covered in the next section of the study.

Table 14 lists the annual labor requirements for the expansion alternatives.

More man-hours of labor are required to do the chores in the tie stall facilities than in the free stall facilities; 89 hours per week versus 61 hours per week for an 80 cow herd. If the labor requirements are assumed to be equally divided between the employee and the owner/manager in each system, the result would be a higher hourly wage for the employee of a free stall operation than the employee of a tie stall operation. For example, given the annual salary used in this study (\$10,800) and assuming that the employee in each situation responsible for one-half of the labor requirements, the employee in a free stall operation would, in effect, be receiving an hourly wage of \$6.75 versus \$4.63 for the employee in the tie stall operation. If the employee in each system is assumed fully employed (e.g. 40-50 hours per week), less of the owner's/manager's time is required to do the chores, allowing more time for management of the operation.

	$\frac{\text{Herd Size}}{60}$			80	80		
	Tie <u>Stall</u>	Tie <u>Stall</u> man-hours	Free <u>Stall</u> required	Tie <u>Stall</u> per year	Free <u>Stall</u>		
Chores							
Milking, prep., cleanup	1,695	2,335	1,530	2,974	1,879		
Forage feeding, 2/day	231	386	386	541	541		
Grain feeding, 2/day	131	171		211	171		
Waste handling	176	264	159	352	212		
Misc. labor, inc. grain repairs, routine work	373	469	469	564	564		
Field Crops							
Corn grain	315	23	7	16	57		
Corn silage	87	13	2	17	75		
Alfalfa establish	25	3	8	2	47		
Haylage	95	14	4	19	90		
Total	3,128	4,175	3,095	5,221	3,775		

Table 14. Annual herd and field labor require	rements.*
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\* Labor requirements do not include those for care of replacements.

If the hours of labor available would be a limiting constraint on the size of the expanded herd, less cattle could be cared for in a tie stall system than in a free stall system with a given amount of labor. For example, if only 61 hours of labor are available per week, then only 55 cows can be cared for in a tie stall operation as opposed to 80 cows in a free stall operation.

### Monthly and Annual Cash Flow Development

Used alone, annual cash flows are not always adequate to determine how liquidity is affected by an investment. By ignoring seasonal variations in sources and uses of funds, a business may show an acceptable cash position for the entire year, but periods may exist during the year when short term credit is needed. In dairying, there is a minimal amount of seasonal variation in income and expenses. However, in an expansion situation, the first few years can be critical and deserve careful analysis. Monthly cash flow analysis can be useful in planning an expansion and can minimize interest expense by arranging for credit needs in advance.

Monthly cash flows for the first five years and annual cash flows for the remainder of the planning span are projected for each alternative. The annual cash flows for the sixth through the thirtieth year are based on the annual cash flow for the fifth year. Changes are made in cash outflow as debts are retired and with changes in the federal and state income taxes paid. The assumption that milk production stabilizes in year 4 leads to the assumption that cash inflow also stabilizes, although minor changes may occur due to number of cull cows, bull calves and bred heifers sold. Constant prices are used throughout the planning span.

The sources of income for the expanded farms are milk sales, cull cow and bull calf sales and the sale of bred heifers not needed to maintain a constant herd size. Cash crop sales are an additional source of income for the stable 40 cow farm. Prices used for livestock and crop sales are: (1) milk - \$11 per cwt., (2) bull calves - \$90, (3) cull cows - \$540, (4) bred heifers - \$800,(5) corn - \$2.50 per bushel and (6) hay - \$45 per ton.

Livestock, crop and other farm expenses are based on the area Farm Business Management Reports and the University of Minnesota livestock and crop budgets. In addition, there is an annual capital replacement expenditure of \$11,000 per year. This value is a compromise between calculated depreciation and actual capital replacement expenditures as reported in the reports. Loans for the investments were amortized as follows: (1) structures and equipment at 9 percent over 30 years, (2) purchased cattle at 10 percent over 7 years, (3) capital replacement at 10 percent over 10 years (capital replacement loans occur only in year 1). Additionally, there is the original

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land bank payment of \$5,881 per year and the original bank payment of \$7,637 per year with 10 and 15 years, respectively, remaining until retirement of the loans.\*

Table 15 illustrates for each alternative the investment costs and yearly payments required for each alternative. Federal and state income taxes and social security taxes incurred through the planning span for each alternative are listed in table 16.

The monthly cash flows for each alternative can be found in the appendix. In examining the monthly cash flows for each alternative, no liquidity problems were observed. Table 17 contains the monthly cash flows for each alternative in year 2 (1980); the first full year after the expansion process begins. Liquidity problems would most likely occur here, if at all. The typical seasonal distribution and total annual cash inflows and outflows are illustrated for each alternative.

The annual cash flows for each alternative in the first five years are listed in table 18.

This information was not directly available from the reports. It is based on the present real estate and chattel mortgages of \$39,462 and \$29,705, respectively. It is an assumption of the author that the real estate loan is at 7 percent over 30 years and that the chattel mortgage is at 8 percent over 10 years.

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		Invest.	Amount	P&I
Alternative	Source	Cost	Borrowed	Payment
RAPID EXPANSION				
Tie stall addition (RTS ADD)	System Cattle	\$105,136 44,500	\$ 93,136 44,500	\$11,261 9,141
New tie stall (RTS NEW)	System Cattle	207,309 44,500	195,309 44,500	19,860 9,141
New free stall (RFS NEW)	System Cattle	175,385 44,500	163,385 44,500	18,404 9,141
GRADUAL EXPANSION				
Tie stall addition	System			
(GTS ADD)	Year 1	70,518	58,518	6,825
	Year 3	42,218	40,000	4,107
	Cattle	13,400	13,400	2,753
New tie stall	System			
(GTS NEW)	Year 1	172,692	160,692	15,427
	Year 3	42,218	40,000	4,107
	Cattle	13,400	13,400	2,753
New free stall	System			
(GFS NEW)	Year 1	151,310	139,310	15,042
	Year 3	30,800	28,000	2,859
	Cattle	13,400	13,400	2,753

Table 15.	Investment costs,	, amount borrowed and yearly princ	ipal and
	interest payments	s for each alternative.	

Table 16. State and federal income tax and social security tax paid per year.\*

Year	Benchmark 40 cow	RTS ADD	RTS NEW	RFS NEW	GTS ADD	GTS NEW	GFS NEW
1	\$16,050	\$ 4,850	\$ 4,050	\$ 4,000	\$10,200	\$ 4,400	\$ 4,400
2	18,850	12,450	2,900	2,850	7,050	700	800
3	26,900	17,950	4,350	4,500	16,000	6,000	5,400
4	24,600	22,750	5,500	5,350	24,700	4,450	4,750
5	25,400	20,350	7,500	4,750	27,800	10,850	1,220
6-30	25,400	20,350	10,850	10,500	27,800	12,800	13,400

\* Assuming current laws and dollars.

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Table 17. Monthly cash flows for each alternative in year 2.

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AGRICULTURAL ECONOMICS PROGRAMI         PROJECTED CASH FLOW BUDGET         RAPID EXPANU TIESTALL ADD. YR2         08-20-79         T60. E3882.         760. 28382.         28814.         27069.         900.         900.         900.         901.         902.         903.         901.         902.         903.         904. <th>JUL 31964 124411. 124411. 124411. 197. 197. 197. 197. 197. 197. 197. 197. 197. 197. 197. 230. 232. 230. 232. 23.</th> <th>JUL 31964 12447 44411 125447 197 197 197 197 197 197 197 197 197 19</th> <th>JUL AUG 31964. 36542. 12447. 11764. 44411. 48306. 401. 401. 401. 401. 401. 401. 197. 197. 230. 230. 230. 230. 230. 230. 230. 230. 230. 230. 230. 230. 36542. 5542. 38869. 42765. 38869. 42765 36042. 39938 36042. 39938</th> <th>JUL AUG SEP JUL AUG SEP 31964, 36542, 49793. 12447, 11764, 9355, 44411, 48306, 49793. 1274, 910, 900, 900, 408, 408, 408, 4079, 197, 197, 408, 4079, 197, 233, 355, 408, 197, 233, 355, 408, 197, 233, 355, 408, 197, 233, 355, 408, 1250, 1250, 1250, 5542, 5542, 5542, 5560, 500, 500, 500, 500, 5542, 5542, 5560, 38869, 42765, 44233, 38869, 42765, 44233, 3887, 2857, 2857, 2857, 360, 000, 000, 000, 000, 000, 000, 000,</th> <th>JUL AUG SEP OCT JUL AUG SEP OCT 31964. 36542. 49793. 4906. 12447. 11764. 9355. 41906. 12447. 11764. 9355. 41906. 12447. 11764. 9355. 41906. 12447. 1970. 900. 900. 900. 100. 900. 900. 900. 900. 900. 230. 230. 230. 233. 233. 2395. 240. 661. 661. 408. 0 0 0 0 0 230. 230. 233. 233. 2395. 395. 400. 900. 1250. 200. 500. 500. 500. 7117. 238869. 42765. 44233. 42504. 1279. 1279. 1279. 1279. 1279. 1279. 1279. 1279. 1279. 1547. 2827. 2827. 2827. 2827. 2827. 2827. 2827. 2827. 2827. 2827. 2827. 2827. 2827. 2827. 2827. 2827. 2827. 2827. 2860. 0 0 0 0 0</th> <th>JUL     AUG     SEP     OCT     NOV       31964;     36542;     40438;     41906;     40117;       31964;     36542;     40438;     41906;     40117;       31964;     36542;     40438;     41906;     40117;       31964;     36542;     40438;     41906;     40117;       900;     900;     900;     900;     900;     900;       900;     900;     900;     900;     407;     4017;       401;     401;     401;     407;     407;     4019;       401;     401;     401;     401;     401;     231;       230;     230;     230;     233;     233;     233;       230;     230;     230;     233;     233;     233;       230;     230;     230;     233;     233;     233;       230;     230;     230;     233;     233;     233;       230;     230;     230;     233;     233;     233;       230;     230;     230;     233;     233;     233;       230;     230;     230;     230;     230;     230;       250;     350;     1250;     1250;     1250;     1250;</th>	JUL 31964 124411. 124411. 124411. 197. 197. 197. 197. 197. 197. 197. 197. 197. 197. 197. 230. 232. 230. 232. 23.	JUL 31964 12447 44411 125447 197 197 197 197 197 197 197 197 197 19	JUL AUG 31964. 36542. 12447. 11764. 44411. 48306. 401. 401. 401. 401. 401. 401. 197. 197. 230. 230. 230. 230. 230. 230. 230. 230. 230. 230. 230. 230. 36542. 5542. 38869. 42765. 38869. 42765 36042. 39938 36042. 39938	JUL AUG SEP JUL AUG SEP 31964, 36542, 49793. 12447, 11764, 9355, 44411, 48306, 49793. 1274, 910, 900, 900, 408, 408, 408, 4079, 197, 197, 408, 4079, 197, 233, 355, 408, 197, 233, 355, 408, 197, 233, 355, 408, 197, 233, 355, 408, 1250, 1250, 1250, 5542, 5542, 5542, 5560, 500, 500, 500, 500, 5542, 5542, 5560, 38869, 42765, 44233, 38869, 42765, 44233, 3887, 2857, 2857, 2857, 360, 000, 000, 000, 000, 000, 000, 000,	JUL AUG SEP OCT JUL AUG SEP OCT 31964. 36542. 49793. 4906. 12447. 11764. 9355. 41906. 12447. 11764. 9355. 41906. 12447. 11764. 9355. 41906. 12447. 1970. 900. 900. 900. 100. 900. 900. 900. 900. 900. 230. 230. 230. 233. 233. 2395. 240. 661. 661. 408. 0 0 0 0 0 230. 230. 233. 233. 2395. 395. 400. 900. 1250. 200. 500. 500. 500. 7117. 238869. 42765. 44233. 42504. 1279. 1279. 1279. 1279. 1279. 1279. 1279. 1279. 1279. 1547. 2827. 2827. 2827. 2827. 2827. 2827. 2827. 2827. 2827. 2827. 2827. 2827. 2827. 2827. 2827. 2827. 2827. 2827. 2860. 0 0 0 0 0	JUL     AUG     SEP     OCT     NOV       31964;     36542;     40438;     41906;     40117;       31964;     36542;     40438;     41906;     40117;       31964;     36542;     40438;     41906;     40117;       31964;     36542;     40438;     41906;     40117;       900;     900;     900;     900;     900;     900;       900;     900;     900;     900;     407;     4017;       401;     401;     401;     407;     407;     4019;       401;     401;     401;     401;     401;     231;       230;     230;     230;     233;     233;     233;       230;     230;     230;     233;     233;     233;       230;     230;     230;     233;     233;     233;       230;     230;     230;     233;     233;     233;       230;     230;     230;     233;     233;     233;       230;     230;     230;     233;     233;     233;       230;     230;     230;     230;     230;     230;       250;     350;     1250;     1250;     1250;     1250;
PROGRAM: 5667 JUN JUN 27069. 12769. 12769. 2395. 661. 197. 197. 197. 197. 197. 197. 197. 19	JUL 31964 124411. 124411. 124411. 197. 197. 197. 197. 197. 197. 197. 197. 197. 197. 197. 230. 232. 230. 232. 23.	JUL AUG 31964. 36542. 31964. 36542. 12447. 117642. 401. 401. 401. 401. 401. 401. 401. 401. 401. 401. 401. 401. 401. 401. 401. 401.	JUL AUG SEP JUL AUG SEP 31964. 35542. 40438. 124471 117642. 9355. 401. 408. 408. 40793. 408. 408. 408. 40793. 197. 197. 200. 900. 233. 3595. 661. 661. 661. 661. 661. 661. 661. 661. 661. 661. 661. 1250. 1250. 1250. 38869. 42765. 44233. 38869. 42765. 44233. 38869. 42765. 44233. 38869. 42765. 44233. 38869. 42765. 44233. 38869. 42765. 44233. 36042. 39938. 41406 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	JUL AUG SEP 0C7 31964. 36542. 40438. 41906. 31964. 36542. 40438. 41906. 12447. 11764. 9355. 7714. 401. 401. 401. 407. 407. 408. 408. 408. 408. 408. 408. 408. 408. 408. 408. 197. 197. 230. 233. 233. 230. 230. 230. 233. 233. 197. 1250. 1250. 1250. 7117. 368. 1250. 1250. 1250. 7117. 38869. 42765. 44233. 42504. 38869. 42765. 44233. 42504. 3600. 500. 500. 500. 500. 500. 3600. 500. 500. 500. 500. 500. 500. 500. 3600. 500. 500. 500. 500. 500. 500. 500.	JUL     AUG     SEP     OCT     NOV       31964.     36542.     49438.     41906.     40177.       31964.     36542.     49355.     77144.     1084.       12447.     11764.     9355.     77144.     1084.       12447.     11764.     9355.     77144.     1084.       401.     401.     401.     401.     401.       900.     900.     900.     900.     900.       900.     900.     900.     900.     900.       900.     900.     900.     900.     900.       900.     900.     900.     900.     900.       900.     900.     900.     900.     900.       900.     900.     900.     900.     900.       900.     0     0     1250.     1250.     1250.       1250.     1250.     1250.     1250.     1250.       1250.     1250.     1250.     1250.     1250.       1250.     1250.     1279.     1250.     1250.       9045.     39869.     42547.     2827.     2827.       91000.     0     0     0     11000.       91279.     1547.     1547.     1547.	JUL     AUG     SEP     OCT     NOV     DEC       J1944.     5594.     559     491906.     40177.     25659.       J1944.     11764.     9335.     47194.     40177.     28659.       J2194.     11764.     9335.     47194.     10849.     41323.       J2194.     11764.     9335.     4714.     10849.     41323.       J2194.     11764.     9335.     4714.     10849.     41323.       J2191.     401.     407.     407.     407.     407.       000.     900.     900.     900.     900.     900.       1971.     1971.     197.     2031.     2331.     2331.       230.     230.     233.     2331.     2331.     2331.       230.     230.     233.     2331.     2331.     2331.       230.     230.     233.     2331.     2331.     2331.       230.     230.     2331.     2331.     2331.     2331.       230.     230.     2331.     2331.     2331.     2331.       230.     230.     233.     2331.     2331.     2331.       230.     230.     230.     231.     2331.     2331.
		A UG A	AUG SEP AUG SEP 36542. 40438. 11764. 9355. 48306. 49793. 1764. 9355. 401. 407. 230. 233. 230. 233. 230. 233. 408. 49793. 230. 233. 230. 233. 23	Aug SEP OCT Aug SEP OCT 36542. 49793. 41906. 11764. 9355. 49196. 11764. 9355. 49196. 11764. 9355. 49620. 2305. 4019. 407. 407. 408. 408. 408. 407. 230. 233. 233. 230. 200. 200. 230. 200. 200. 233. 233. 233. 233	Aug     SEP     OCT     NOV       Aug     SEP     OCT     NOV       36542     40438     41906     40177       36542     40438     41906     40177       36542     40438     41906     40177       36542     40438     41906     40177       36542     40355     4774     1084       11764     9355     47733     4980       401     407     407     407       900     900     900     900       900     900     900     900       900     900     900     900       917     230     233     233       230     233     233     233       230     233     233     233       230     233     233     233       230     233     233     233       230     233     233     233       230     233     233     233       230     233     233     233       230     260     1200     902       5542     5560     7117     9453       5542     44233     42504     42016       52425     44233     42504     2016 <td>AUG     SEP     OCT     NOV     DEC       36542:     49138:     41906.     40177.     286899       11764:     9355.     7714.     1984.     14634.       36542:     49353.     7714.     1984.     14634.       11764:     900.     900.     900.     900.     900.       11764:     900.     900.     900.     900.     900.       11764:     407.     407.     407.     407.       1990:     900.     900.     900.     900.     900.       1970:     203.     233.     233.     233.     203.       230.     233.     233.     233.     233.     203.       1971.     200.     201.     902.     900.     900.       1972.     200.     233.     233.     233.     233.       230.     233.     233.     233.     233.     203.       230.     230.     200.     200.     200.     200.       356.     1104.     92.     350.     200.     200.       356.     1250.     1250.     1250.     1250.     1250.       198.     4200.     2100.     200.     200.     202.</td>	AUG     SEP     OCT     NOV     DEC       36542:     49138:     41906.     40177.     286899       11764:     9355.     7714.     1984.     14634.       36542:     49353.     7714.     1984.     14634.       11764:     900.     900.     900.     900.     900.       11764:     900.     900.     900.     900.     900.       11764:     407.     407.     407.     407.       1990:     900.     900.     900.     900.     900.       1970:     203.     233.     233.     233.     203.       230.     233.     233.     233.     233.     203.       1971.     200.     201.     902.     900.     900.       1972.     200.     233.     233.     233.     233.       230.     233.     233.     233.     233.     203.       230.     230.     200.     200.     200.     200.       356.     1104.     92.     350.     200.     200.       356.     1250.     1250.     1250.     1250.     1250.       198.     4200.     2100.     200.     200.     202.

		TOTAL	13087. 147768. 160855.		1	10800.	4768.	2422.	5537.	-040-	4101.	2193.	2394.	2143.	4/88.	2435.	4122.	4420.	15000.	4020-	A7814.	73036.		11000.	62036.		12120	18568. 18568. 44309.	1727.	00		G	0 1 A 2 2 7 .
		DEC	11934. 14634. 26568. 1		•	• 006	-105 407-	0	0 0		0	233.	200.	233.	+00+	• • •	0	368.	1250.	0,00	-000 5149.	21419.		00	21419.		3110	1547. 3692.	17727.	• <b>&gt;</b>		0	
APUTER DECISION AIDS AGRICULTURAL ECONOMICS PROGRAM: NSION FARM MANAGEMENT PROJECTED CASH FLOW BUDGET . EXTENSION SERVICE RAPID EXPAND NEW TIESTALL YR2 FEASITY OF MINNESOTA 08-20-79 CASH INFLOWS ***		NON	24528. 10884. 35412.			900.	407.	0	00	1098.	2051.	233.	200-	233.	400.	0	0	m	1250.	0,000		26126.		11000.	15126.		2140	1547. 3692.	11434.			0	
		0CT	77752 7714. 35466.			900. 656	407		.53.	00	0	233.	200.	833 <b>.</b>	400.	1217.	0	368.	1250.		7746.	27120.		00	27720.		2145	1547. 3692.	24028.	00		0	0 54528.
		SEP	( m			900.	407.	0	00		0	233.	200.	233.	400. 461	•	0	368.	1250.	500	58ú6.	30945.		00	30945.		2146	1547. 3692.	27252.	00		0	27752.
		AUG				900. 656.	401.	0	20	0	0	230.	197.	-0E2	• C 6 9 4	0	0	368.	1250.	2005	5788.	.0589.		00	<b>30</b> 589.		2145.	1547.	26896.	о о		G	0 27396,
		JuL	21146. 12447. 33593.			900. 654.	401.	0	0 0	0	0	230.	197.	230,	- 649 - 649	0	0	368.	1250.	004	5788.	27805.		• •	27805.		2145	1547. 3692.	24112.	60		0	24612.
		NUL	17363. 12763. 30126.		000	400. 454.	401.	0	00	> o	0	230.	197.	230 <b>.</b>	- 199 1661 -	0	0	368.	1250.	0.00	5788.	24338.		00	24338.		2145	1547.	20646.	00		0	21146.
		MAY	2057a. 12451. 33029.			\$00. 654.	407	Č	1023.		2051.	233.	200	233 <b>.</b>	- 104 991	1217.	0	<b>m</b> '	1250.	500	12473.	20555.		<b>0</b> 0	20555.		2145	1547. 3692.	16863.	00		0	17363.
		АРЯ	21234. 12382. 33616.				407	1434.	2768.	0	0	233.	200-	233. 003	131-	0	0	368 <b>- 36</b> 8	1250.	500.	9840.	23770.		00	.07765		2145.	1547.	20078.	90		0	0 20576.
		MAR	20427. 18586. 14672. 13002. 35099. 31588.		•006	32 44	407	990.	•620T	• •	0	233 <b>. 233.</b> 200 200	-002	- C33-	331.	• *	ž		1250.	, 002	<u>ب</u> ، د	24427.	<b>6</b> 0	00	24427.		2145-	1547.	20734.	00		a	0 • 75312
	0.5	FE8				327.	407.	0 0		0	0		200-	<ul><li>5.55</li><li>6.00</li></ul>	331.	0			1250.	500.	13661	21714.		00	21779.		2145.	1547. 3692.	18086.	03	•	¢	18586
	*** S.MO	JAN	13087. 15700. 28787.	LOWS ***		327.	412	00			0	236.	202	236.	331.	0	0	368.	1250.	500.	5167.	23620.	URCHASES	00	23620.	ENTS ***	2145.	1547. 3692.	19927.	00		0	0 29427.
	*** CASH INFL		HEG CASH BAL LVSTK MILK TOTAL INFLOW	*** CASH OUTFLOWS	10FD 1 ABOD		PUNCH. FEED	5EEO 5E01111750	CHEMICALS	CHOP INSUR.	MACH. HIRE	EVEEDING	VEI. A MEU.	LSR SUPPLIES	GAS-OIL-DRY	FALM TAXES	FAHM INSUR.	UTILITIES	FAM. LIVING	MIN END HAL	TUL OUTFLOW	SURP. OR DEF	••• CAPITAL PURCHASES	масн. Рийсн. 101. сар Рий	SURP. OR DEF	DEBT PAYMENTS	FIH PAYMENT		SURP. OR DEF	ACC. AO INT. Ad Prin. Pay	*** AO LOAN BALANCES	HEG 20 846	

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		TOTAL	12271. 142737. 155006.		10800. 6126.	493 <b>7.</b>	5568.	1104.	4101. 2784.	2367.	2104.	6612.	2195. 3643.	4420.	12000. 4006.	.002 86631.	68357.		11000. 11000.	57357.		7249 <b>5.</b> 18569. 4106 <b>3.</b>	16294.	00		0 16794.
		DEC	14853. 14 24844. 15		900- 1 306-	• 7 7 7	00	0	0 233.	200.	233. 400.	331.	00	363.	• છ ວ	500. 5128. 8	19716.		00	19716.		1875. 1547. 3422.	16294.	00		0 16794 •
		NON	23262. 9901. 33163.		900. 613.	•/04	00	1104.	233.	200.	400.	.266	00	368	• D S V T	500. 9250.	23913.		11000. 11090.	12913.		1875. 1547. 3422.	.1049	00		0 0 9991 •
		001	26383. 7367. 33750.		900. 613.	401.	723.	0	230.	197.	230. 395.	661.	1098. 0	368.	•057T	500. 7566.	26184.		00	26184.		1875. 1547. 3422.	22762.	• •		0 0 23262.
		SEP	26075. 8977. 35052.		900. 613.	401.	00	0	30	197.	230. 395.	661.	00	368.	• NC 7 1	500 <b>.</b> 5746.	29305.		00	29305.		1875. 1547. 3422.	25883.	0 <b>0</b>		0 0 26383.
S		AUG	23380. 1145. 34725.		900. 613.	396. 0	00	0	0 227.	195.	390.	661.	00	368.	•0<21	500. 5728.	28997.		00	.79485		1875. 1547. 3422.	25575.	<u>0</u> 0	:	0 0 26075 •
		JUL	0005. 2043. 2048.	~ ~;	900 613	401.	00	0	230.	197.	230. 395.	661.	00	368.	• DG > 1	500.	26302.		00	26302.		1875. 1547. 3422.	22880.	•••		0 0 23380
ROGRAM: T TR2		NUL	16317. 12356. 28673.		900. 613.	401. 0	00	0	230.	197.	230. 395.	661.	00	368		5746.	22427.		00	22927.		1875. 1547. 3422.	19505.	00		0 2ê005.
AGRICULTURAL ECONOMICS PROGRAM: PROJECTED CASH FLOW BUDGET : Rapid Expand New Freestall YR2 08-20-79		НАҮ	19517. 12060. 31577.		900. 613.	407.	1031.	0	2051. 233.	200.	233.400.	661.	1098. 0	368.	12'50. 0	500. 12338.	19239.	,	00	19239.		1875. 1547. 3422.	15817.	00	÷	0 0 16317.
NLTURAL EC ED CASH F XPAND NEW		APR	20295. 11972. 32267.		90U. 613.	407.	2784.	0	0 23J.	200.	233.	331.	• •	ന	• UCSI	500. 9828.	22439.		00	22434.		1875. 1547. 3422.	19017.	00		0 0 19517.
AGRÍCU Project Rapid E 08-20-7		MAR	17825. 12548. 30373.		900. 306.	407. 598.	1031.	• •	0 233 <b>.</b>	200.	233.	166	00	36P.	1250.0	500. 7156.	23217.		00	23217.		1875. 1547. 3422.	.20791	00		0 20295.
L N		FEB	19345. 14173. 33518.		900. 306.	4.07.			0 233 <b>.</b>	200.	233.	.166	0 1647	368	12000.	.002 12771.	20141.	9 9 *	00	20147.		1875. 1547. 3422.	17325.	00,	:	0 0 17825.
SION AIDS MANAGEME	*** S#	NAL	12271. 15142. 27413.	0 WS ***	900. 306.	4 12 <b>.</b>	00	. 0	0 236.	202.	236.	331.	00	368.	1250.0	500. 5146.	22267.	PURCHASES	00	22267.	ENTS	1875. 1547. 3422.	18845.	03	•	0 0 19345 • 1
CCMPUTEM DECISION AIDS EXTENSION FARM MANAGEMENT AUMILE EXTENSION SEMVICE UNIVENSITY OF MINNESOTA	*** CASH INFLOWS ***		HEG CASH BAL LVSTX MILK Total I'FLOW	• ** CASH OUTFLOWS	HIRED LABOR Hemairs	PUNCH. FEED Sfed	FEHTLIZER	CHOP INSUR.	MACH, MINE Hmeeding	VE1. ~ MED.	LSK SUPPLIES LVSTK - MKTGS	GAS+01L+U+Y	FAXM TAXES FAXM TAXES	UTLITIES	FAM. LIVING Inc a 55 TAX	ű,	Sugp. On DEF	*** CANITAL PL	часн. Ринсн. 101. сар Рин	SURP. UR DEF	*** DEBT PAYNENTS	FLB PAYMENT Huk NRE FYMT Tot dem Pay	SUGP. OR DEF	ACC. AO INT. Ao prin. Pay	••• AU LUAN BALANCES	650 A0 HAL FYU A0 HAL END CASH HAL

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		DEC TOTAL	10425. 19222. 11349. 106961. 21774. 126143.			0 6100. 165. 3306. 315. 3552.	0.0	0 2732.		181		310. 3444.			•	00201 0	500. 500. 3638. 75875.	8137. 50308.		0 11000. 0 11000.	8137. 39308.		986. 11833. 939. 11253. 1925. 23096.	6212• 16212•	00		0 0 16712 - 16712 -
		NON	22678. 1 8194. 1 30872. 2			871. 331. 310.	0 7	7	1785.	178.	174.	305	690.		351.	•••••••••••••••••••••••••••••••••••••••	500. 8022.	22850. 1		11000. 11000.	11850. 1		986. 939. 1925.	4925 <b>.</b> 1	00		0 U 10425 • 10
		0CT	22291. 7965. 30256.			871. 331. 300.	0 600-		20	172.	141	295.	460.		351.	• 0 0 1	500. 6154.	24102.		00	24102.		486. 439. 1425.	22178.	00		0 22678.
		SEP	20493. 8072. 28565.		į	871. 331. 300.	00	00	о о	172.	141.	295.	460.		351.	J	500. 4849.	23716.		00	23716.		986. 939. 1925.	21791.	00		0 0 0 0 22291
		AUG	17704. 9044. 26748.		;	871. 331. 295.	00	00	0	169.	169.	290	460.		351.		500. 4831.	21918.		<b>00</b>	21918.		986. 939. 1925.	19993.	00		0 0 20493 •
ı		JUL	14857. 9103. 23960.			331. 295.	00	00	, ,	169.	140°	290.	•09 <del>•</del>	0	351. 1250.	0	500. 4831.	19129.		00	19129.		986. 939. 1925.	17204.	00		0 0 17704.
PROGRAM: SET J. YR2		NUL	11964. 9130. 21094.			331. 290.	00	00	00	166.	166.	285.	•004		351.		500. 4812.	16281.		00	16281.		986. 939. 1925.	.14357.	00		0 14857.
ECONOMICS FLOW BUDG ESTALL ADG		MAY	16070. 8328. 24398.			331. 290.	0 1116.	2592.	1785.	166.	166.	285.	460.	0	351.	••••	500. 11010.	13388.		00	13388.		986. 939. 1925.	11464.	00		0 11964.
AGRİCULTURAL ECONOMICS PROGRAM: Projected Cash flow Budget Grad Expand Tiestall Add. YR2 08-20-79		APR	17148. 8474. 25622.		~	331.	1444. 2832.	140.	00	166.	166.	285.	• 0F 2	0	351. 1250.	) ) J	500. 8127.	17495.		00	17495.		986. 939. 1925.	15570.	<b>0</b> 0		0 0 16070.
AGRIC PROJEC GRAD 08-20-		MAR	15686. 8628. 24314.		c	165. <sup>4</sup> 290.	1080. 1116.	00	00	166.	166.	285.	• • • • •	0	351. 1250.	0	509. 5741.	18572.		00	18572.		986. 939. 1925.	16648.	00		0 0 17144.
JS JENT TA		FEB	23690. 9236. 32926.		c	165. 290.	00	а с	00	106.	166.	285.	• ^ 2 2	2070.	351. 1250.	10200.	500. 15815.	17110.	• • •	00	17110.		986. 934. 1925.	15186.	00	:	0 0 15646.
ISION AIL MANAGEN DN SERVIC MINNE SOI	• • • SMO	NAU	19222. 9438. 28660.	L045 ***	c	165. 290.	• •	00	00	166.	166.	285.	• • • • •	0	351.	0	500. 3545.	25115.		00	25115.	ENTS ***	986. 939. 1925.	.09165	00	•	-08385 0 0
COMPUTEN DECISION ATDS Extension Famm Management Agri. Extension Service Umivemsity of Minne Sota	*** CASH INFLOWS ***		HEG CASH BAL L'STK MILK TOTAL INFLOW	*** CASH OUTFLOWS	DAN I VAN	REPAIRS PURCH. FEED	SEED FERTLIZER	CHEMICALS CHUMINALIN	MACH. HIRE	SREEDING VEL A WED.	LSK SUPPLIES	LVSTK. #ATG.	FARM TAXES	FARN INSUR.	UTLITTES Faw, LIVING	1.C + 55 TAX	MIN END HAL TUL OUTFLOW	SURP. OR DEF	••• CAPITAL PURCHASES	часн. Риксн. Трт. сар рик	SUPP. OR DEF	••• DENT PAYMENTS •	FLB PAYNENT Drk NRE PYMT Tot debt pay	SURP. OR DEF	ACC. AQ INT. AQ PRIN. PAY	••• AD LUAN BALANCES	856 40 541 510 40 441 211 5354 441

		TOTAL	15758. 106961. 122719.			6100. 5757.	3552	2524.	2732.	1121.	35/0.	1767		- <b></b>	4502.	2175.	3002.	4 C C C C	100001	500.	74824 °	47895.		11000.			22225. 11263. 33488.	3407.	16,		0 0 3861
		DEC	500. 11349. 11849.			0 288.	315.	00		0	0	• 17 • 17		310.	230.	3	0 i 3 c	-107	0	500.	3760.	8089.		00	0 0 0 0 0 0		1852. 939. 2791.	5298.	16. 1891		1991. 0 3891.
		NON	11972. 8194. 20166.			576.	310.	0 0	. 0	1121.	178.	152	178.	305	690.	0	3610	1750.	l l	ŝ	8257.	11899.		11000.	, nog		1852. 939. 2791.	-1891-	00	1	0 1991 - 500 -
		0C1	13080. 7965. 21045.			576.	300.	0 600-	- CI 	0 0	172.	147.	172.	295.	460.	1088.	351	• • • • • •	1	500°	6782.	14263.		00	14263		1852. 939. 2791.	11472.	00		0 0 11972•
		SEP	12393. 8072. 20465.			576.	300°	00		0 0	172.	147.	172.	295.	460.	00	351	រំលំ	) )	500.	2094.	15371.		00	15371.	)   	1852. 939. 2791.	12580.	00		0 13080.
		AUG	10715. 9044. 19759.		120	576.	295.			0 0	69	ŝ	169.	290.	460.	00	351.	1250	0	500.	-919c	14683.		00	14683.	,	1852. 939. 2791.	11893.	00		0 0 12393.
		JUL	8979. 9103. 18082.		110	576.	295.	<b>.</b>	0		169.	145.	-169.	290.	460.	00	៊	1250.	0	500.	• 9/ NC	13006.		00	13006.		1852. 939. 2791.	10215.	00		0 0 10715.
PROGRAM: SET - YR2		NUL	7197. 9130. 16327.		471	576.	290.	00	00	00	166.	142.	166.	285.	460.	• •	351.		0	500.	•/ < ח <	11269.		00	11269.		1852. 939. 2791.	8479.	00		0 0 8979.
ECONOMICS FLOW BUDG TIESTALL		МАҮ	12797. 8328. 21125.		178	576.	290.	1116.	2592.	0 1785	166.	142.	166.	285.	460.	1088.	351.	1250.	0	500.	•8call	.1846		00	9487.		1852. 939. 2791.	6697.	00		• 2612 0
AGRICULTURAL ECONOMICS PROGRAM: Projected Cash Flow Budget Grad Expand New Tiestall yr2 08-20-79		APR	14986. 8474. 23460.		C	576.		2834.			166.	142.	166.	285.	- 162 -	• •	351.	1250.	0	000	03/60	15084.		00	15088.		1852. 939. 2791.	12297.	00		0 0 12797.
AGR1 PR0JE( GRAD 6 08-20-		MAR	14513. 8628. 23141.			288.	290. 1080.	1116.	•		166.	142.	166.	285.	<30.5		351.	1250.	0	500. 526/	• • • • • • •	17277.		00	17277.		1852. 939. 2791.	14486.	00		0 0 14986 •
AENT CE		FEB	19237 <b>.</b> 9236. 28473.		0	288.	-045 0	00	0 0	00	166.	142.	106.	285 <b>.</b>	- nc 7	3602.	351.	1250.	4400.	500. 1:670	•••••	16803.	* *	00	16803.		1852. 939. 2791.	14013.	00	**	0 14513.
CISION AIG M MANAGE ON SERVIC MINNESOI	0wS 84+	JAN	15758. 943ð. 25196.	LOWS ***	0	288.	•062		0 0	00	166.	142.	166.	285. 225	• 77 7 0	0	351.	1250.	0	500.	• • • • • •	21528.	URCHASES	00	21528.	PAYMENTS ***	1852. 939. 2791.	18737.	00		0 0 19237.
COMPUTER DECISION AIDS EXTENSION FARM MANAGEMENT AGRI. EXTENSION SERVICE UNIVERSITY OF MINNESOTA	*** CASH INFLOWS ***		BEG CASH BAL LVSTK ATLK TOTAL INFLOW	*** CASH OUTFLOWS	HIRED LABOR	REPAIRS	PUNCH. FEEU SEED	FEWTIL IZER	CHEMICALS CROP INSUR-	MACH. HIME	BHEEDING	VET. A MED.	LSK SUPPLIES	LVSIX. MKIG.	CADICLICATING CADIC TAVEC	FAKM INSUR.	UTIL ITIES		INC A SS TAX	MIN ENU SAL		SURP. OR DEF	*** CAPITAL PURCHASES	MACH. PUHCH. 1JI. CAP PUR	SURP. OR DEF	•*• DEBT PAYN	FLB PAYMENT Bris NRE PYMT Tot debt Pay	SURP. OR DEF	ACC. AO INT. AO PRIN. PAY	*** AD I DAN HAI ANEES	ебб ао вац Емр ай нац Емр саун Вац

		1074L	15477. 195236. 126713.		6100. 5518. 2552	.7565	5004. 2732.	121. 1276.	2638	2)38.	34.44	4492. 2014	3612.	4207.	• • • • • •	500. 76235		46509.		11000.	35509.		20050. 11263. 31313.	4196.	10.		00	4985.
		DEC	500. 11220. 1 11720. 1		0 281.		00	0 c	181.	155.	310.	230.	00	351.	•nc>1	500.		7967.	•	00	7967.		1671. 939. 2609.	5357.	10. 1162.	·	11.52.	4586.
		NON	12623. 8078. 20701.		871. 562.	• 110• 0	00	1121. 1785.	178.	152.	305	690.		351.	• 06.21 0	500. 0 203		12448.		11000.	1448.		1671. 939. 2609.	-1162.	00		0 1152.	500.
		0CT	13548. 7872. 21420.		871. 562.	.00£	600.	0 0	172.	141.	295.	460.	.0	351.	• AC71	500.	• • • • • • • • • • • • • • • • • • • •	14733.		00	14733.		1671. 939. 2609.	12123.	00		00	12623.
		SEP	12760. 7978. 20738.		871. 562.	•005	00	00	172.	147.	295.	460.	0	351.	• 0 C 7 T	500.	• • • • • • •	15657.		00	15657.		1671. 939. 2609.	13048.	00		00	13546.
		AUG	10994. 15937.		871. 562.	-562 0	00	00	169.	145.	290.	460.	00	351.	•0C>T	500.	• 7000	14869.		00	14869.		1671. 939. 2609.	12260.	00		00	12750.
		JUL	9620. 8545. 18165.		871. 552.	295. 0	00	0 0	169.	145.	• 062	460.	00	351	•062T	500.	• 30.00	13103.		00	13103.	•	1671. 939. 2609.	10494.	00		00	10994.
робрам: 1 . Үнг		NUL	7750. 9023. 16773.		871. 562.	• 062	00	00	166.	142.	265.	460.	00	351.	• NC 21	500.	• + + • • •	11730.		00	11730.		1671. 939. 2609.	9120.	00		00	9620.
CONOMICS F LOW BUDGE FREESTALL		НАҮ	13173. 8230. 21403.		871. 562.	-062 0	1116.	0 1785	166.	142.	285.	460-	• / n n T	351.	.0c21	500	• ++-(	9860.		00	9860.		1671. 939. 2609.	7250.	00		¢ ¢	7750.
AGRICULTURAL ECONOMICS PROGRAM PROJECTED CASH FLOW BUDGET GRAD EXPAND NEW FREESTALL YK2 08-20-79		АРЯ	15266. 8375. 23641.		0 562.	290. 1444.	2832. 140.	00	160.	146.	285.	230.	00	351.	• UCSI	500.	•0000	15283.			15283.		1671. 939. 2609.	12673.	00		00	.67161
AGRICU PROJEC GRAD EJ 08-20-1		MAR	14706. 8526. 23232.		281.	4, 290.	1116.	00		142.	285.	230.	00	351.	.0לאו 0	500.	•1505	17375.		00	17375.		1671. 939. 2609.	14766.	60		00	15266.
A FENT		FEB	19033. 9126. 28159.		281.	-062 0	00	00	166.	142.	285.	230.	3282.	351	1400.	500		16815.	9 0 9	60	16815.		1671. 939. 2609.	14206.	00	:	¢ ¢	14706.
ISION AID MANAGEM DN SERVICI MINNESOT	0WS 400	NAU	15477. 9326. 24803.	*** SMO-	0 281.	290 <b>.</b> 0	00	0 4	166.	142.	285.	230.	0	351	.0251 0	500	•1005	21142.		00	21142.	ENTS ***	1671. 939. 2609.	18533.	00		00	, 19033.
COMPUTEN DECISION AIDS EXTENSION FARM MANAGEMENT AGK1. EXTENSION SERVICE UNIVERSITY OF MINNESOTA	*** CASH INFLOWS ***		BEG CASH BAL LVSTK MILK TOTAL INFLOW	*** CASH OUTFLOWS	HIRED LABOR REPAIRS	PUMCH. FEED SEED	FÊKTILIZER Chémicals	CHOP INSUR.	MACT. RIKE MAREDING	VET. A MED.	LVSIK. MATG.	645+01L+D4Y	FARM TAKES	UTILITES	FAM. LIVING		IUL DUILUN	SURP. OR DEF	*** CAPITAL PURCHASES	MACH. PURCH. 101. CAP PUR	5024° 02 05 55	••• DEBT PAYMENTS	FLB РАҮМЕNT НNK NVE РҮМТ 131 DEBT РАҮ	SURP. OR DEF	ACC. AO INT. AO PRIN. PAY	••• AO LOAN BALANCES	BEG AO BAL	EVU AD BAL Erid CASH BAL

x		BENCHMAF	<u> 10 COW</u>	HERD	
	Yr l	Yr 2	Yr 3	Yr 4	Yr 5
₽ CASH INFLOWS **	9				
ELG CASH BAL	13031.	19602.	28397.	47208.	57231.
CORN	12500.	9000.	23334. 1575.	23104.	23104.
HAY NUSTRE MUTH	3375. 78351.	7875. 80649.	85431.	85011	1350. 87049.
LVSTK MILK Total Inflow	107257.	117126.	138737.	156898.	168734.
-	-				
*** CASH OUTFLOWS *		455.	455.	955.	435.
HIRED LABOR	955. 1636	1519.	1519.	1519.	1519.
REPAIRS Purch. FEED	1514. 2439.	2434.	24 19	2435.	2439.
PURCH. HAY	<b>.</b> _ · · ·	-		ಗಟ.	
SEED	2524.	2/09.	2709.	2709.	2709.
FERTILIZER	5064.	5080.	5280.	5880.	5880.
CHEMICALS	2732.	3060.	3000.	3060.	3000.
CROM INSUR. Mach. Mire	1121.	1152.	1152.	1152. 2467.	1152.
HACH. HINE HREEDING	2+67. 1399.	2407.	2467.	1399.	2457. 1399.
VET. A MLD.	1200	1200.	1200.	1200.	1500.
LSK SUPPLIES	1399.	1399.	1399.	1395.	1399.
LVSTK. MKTG.	5334.	2344.	2311.	5722	2344.
GAS+OIL+DRY	2555.	2555.	2055.	2555. 880.	2935.
FARM TAXES FARM INSUR.	1012.	ньб. 101г.	980. 1012.	1015.	901c.
UTILITIES	21.36.	5136.	2130	2130.	6130
FAM. LIVING	12000.	15000.	15060.	15000.	11.000.
INC A SS TAX	18729+	14.000.	18350.	26900.	24500.
MIN END BAL TUT. OUTFLOW	500. 63630.	500. 64711.	500. 67511.	500. 75649.	-000 73261
SURP. OR DEF	43021.	52415.	71226.	P1249.	95473.
CAPITAL PURCHASI					
MACH. PURCH.	11000. 11000.	11000.	11000. 11000.	11000. 11000.	11000.
TUT. CAP PUR	11000-	11000.	11000.	11000.	11000.
SURP. OR DEF	32627.	41415.	60226.	70249.	P4473.
DEUT PAYMENTS	**				
FLB PAYMENT	5881.	5881.	5881.	5001.	5881.
UNK NAE PYMT	7637.	7637.	7637.	7637.	7637.
TOT DEBT PAY	13518.	13518.	13518.	13518.	13518.
SURP. OR DEF	19109.	27897.	46708.	56731.	70755.
* AO INI. AO PRIN. PAY	7. 812.	0	0 0	0	0 0
+++ AO LOAN BALANCES		•			
HEG AN HAL	o	o	0	0	0
END 40 HAL	0	0	0	0	Ó
END CASH BAL	15000.	28347.	47208.	572312	71+55+

# Table 18. Annual cash flows for each alternative for first five years.

## RAPID EXPANSION TIE STALL ADDITION

	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
*** CASH INFLOWS ***					
BEG CASH BAL	13631.	16550.	35971.	54260.	7616r.
сони	5000.				
HAY Evsek milk	2025. 93895.	147758.	156202.	169155.	167/03.
TOTAL INFLOW	113951.	164318.	192173.	223415.	243450.
APP CASH OUTFLOWS AND	8				
HIRED LABOR	955.	10800.	10800.	10400.	10300.
REPAIRS	1519.	4078.	4078.	4078.	4078.
PURCH. FEED	3079.	4858.	4878.	4878.	4878.
PURCH. CORN		24.17	1454.	5164. 2437.	5764.
SEE0	2524 -	2437. 5568.	243/. 5554.	5563.	2437. 5568.
FERTILIZER	5664. 2732.	2564	2564.	2564.	2564
CHEMICALS CRUP INSUR.	1121.	1104.	1104.	1104.	1104.
MACH. HIRE	2457.	4101.	4101.	4101.	4101.
HNELDING	1767.	2193.	21.4.	5/99.	2149.
VET. A MED.	1514.	2344.	2349.	2399. 2199.	5344.
LSK SUPPLIES	1767.	2143. 4788.	2199. 4193.	4196.	2147.
LVSTK. MNTG.	3029.	6612.	6612.	6512.	4/98. 6012.
GAS+OIL+URY FAHM TAXES	2555. 880.	1668.	1000.	1662 .	1668.
FARM INSUR.	1012.	2589.	5293.	2264.	2544.
UTILITIES	2136.	4420.	4420.	4420.	4460.
FAM. LIVING	12000.	15000.	15000.	15000. 17950.	15000.
INC A SS TAX	18729.	500.	- 20.	500.	22750. 22750.
HIN END BAL Tut. Outflow	65950.	A3427.	93493.	102526.	10/565.
	48001.	80391.	98680.	120587.	136322.
SURP. OR DEF					1 51) 72 24
• • • CAPITAL PURCHASES	5 ***				
SH. LVSK PUR	44500.				
HACH. PURCH.	11000.	11000.	11000.	11000.	11000.
HLDG. PURCH.	105136. 160636.				11000.
TOT. CAP PUR		11000.	11000.	11000.	125322.
SURP. OR DEF	-112635.	69341 •	#762U.	109507.	1600464
••• NEW CREDIT •••					
FLB LOAN	93136.				
HNA NRE LOAN	54500.				
TOT NEW CRED	147036.				
*** DEBT PAYMENTS ***					
FLB PAYMENT	9038.	15352.	15352.	15352.	15352.
BNK NRE PYMT	9894.	18568.	18558.	18568.	18558.
TOT DEET PAY	18932.	33420.	33420.	33920.	33920.
SURP. OR DEF	16069.	35471.	53760.	75667.	91402.
AO INT. Ao prin. Pay	19. 893.	0	0	. 0	b
		0	v	0	v
••• AO LOAN BALANCES					-
BEG AO BAL	0	0	0	0	0
END AO HAL	0 16550.	9	0 54250-	0	91402.
END CASH BAL	102344	35971.	296.214	76167.	

# RAPID EXPANSION NEW TIE STALL

	Yr l	Yr 2	Yr 3	Yr 4	Yr 5
*** CASH INFLOWS ***					
HEG CA H BAL	13031. 5000.	13087.	18227.	30915.	51271.
HAY LVSTK SILK TOTAL INFLOW	2025. 93895. 113951.	147768. 160455.	156202. 174429.	169155.	167783. 219054.
444 CATH OUTFLOWS 444			-		
	: :	10800	10-04	10400.	10500.
HIPED LABOR HEPAIRS	455. 1519.	10800+ 6540+	10000.	6540.	6540.
PUNCH. FEED	3979.	4-168.	4878.	4078.	4876.
PUNCH. CURN			1929.	5764. 2437.	5764.
SEED	2524 .	2422.	2437.	5558.	2437. 5568.
FERTILIZER	5064.	5537. 2546.	5558. 2564.	2504.	2564 .
CHEMICALS CROP INSUR.	2732.	1048.	1104.	1104.	1104.
MACH. HIKE	2457.	4101.	4101.	4101.	4101.
SALEDING	767.	2143.	5144.	2199.	2799.
YEL. A MED.	1514.	2394.	5344.	5144.	2399. 2799.
LGK SUPPLIES	1767.	2143.	2199.	4190	4798.
EVSTK. MKTG.	3029.	4788. 6512.	6612+	6510.	6612.
GAS+JIL+DRY FARM TAXES	550.	2435.	2435	2435.	24350
FARM INSUR.	1012.	4122.	4122.	4122.	4122+
UTILITIES	2136.	4420.	4-+ 2 6 +	4475 159003.	4426.
FAM. LIVING	12000.	15000.	5660.	4330.	19000. 9500.
INC A SS TAX	18/29.	4050.	2900. 2900.	292.	564.
MIN END BAL	500. 65950.	900. 87819.	88705.	93140.	95141+
TUT. OUTFLOW	00000	010171		106080.	1.00.01.1.1
SURP. OR DEF	4ACU1.	73035.	85724.	••••	173914.
••• CAPITAL PURCHASES	***				
BR. LVSK PUR	44500.				
MACH, PURCH,	11000.	11000.	11000.	11000.	11000.
HLGG. PURCH.	207309.				
TOT. CAP PUR	262809.	11000.	11000.	11000.	11000.
SURP. OR DEF	-21-808.	62036.	74724+	95080.	112914.
••• NE# CPEDIT •••					
FLE LOAN	195309.				
BHIT HRE LOAN	54500.				
TUT NEW CRED	249809.				
*** DEBT PAYMENTS ***					
FLB PAYMENT	12501.	25741.	25741.	25741.	25741.
BUR NEE PYMT	9994.	18568.	18508.	18568.	18568.
TOT DEET PAY	22395 <b>.</b>	44309.	46304.	44369.	44.309.
SURP. OR DEF	12606.	17727.	30415.	50771.	68605.
AO INT. Ao Prin. Pay	19. 893.	0	9 0	0	0
••• AO LOAN BALANCES *		*	-		v
HEG AO BAL	0.	^	o	0	
END AD BAL	ő	0	c	0	0
ENU CASH HAL	13087.	1A227.	30915.	51271.	69105.
-		-			

## RAPID EXPANSION NEW FREE STALL

Yr 1 Yr 2 Yr 3 Yr 4 Yr 5

\*\*\* CASH INFLOWS \*\*\*

BEG CASH BAL	13031.	12271.	16744.	30073.	49095.
CORN	5000.				
ri A Y	2025.				
LVSTK MILK	92247.	142737	150429.	161792.	160500.
TUTAL INFLOW	115303*	155008.	149953*	191865.	259681.
444 CASH OUTFLOWS 444					
HINED LABOR	955.	10400	20400		
REPAIRS	1519.	10800. 6126.	10500. 6126.	10500.	10400.
PURCH. FEED	3079.	4853.	48/3.	6126.	6126. 4878.
PURCH. CORN			194.	4564.	4564.
SELU	2524.	2437.	2431.	2437.	2437.
FERTILIZER	5664.	5568.	5568.	5560.	5968.
CHEMICALS	2732.	2564.	2564.	2504.	2504.
CHOP INSUR.	1121.	1104.	1104.	1104.	1104.
MACH. HIME	2467.	4101.	4101.	4101.	4101.
SHEEDING	1767.	2754.	2149.	2749.	2744.
VET. A WED.	1514.	2387.	2349.	5328.	5348.
LSK SUPPLIES	1767.	2784.	2149.	2794.	2799.
LVSTR . HKTG.	3020.	4773.	47 723	4748.	4754.
GAS+OIL+ORY	2555.	6612.	6012. 2145	6012. 2155.	6012.
FARM TAXES	880.	2195. 3643.	2145. 3643.	3643.	2195. 3043.
FARM INSUR. UTILITIES	1012.	4420.	4424	4400	44200
FAM. LIVING	2136. 12000.	15000.	15000.	15000	15060
INC A SS TAX	18729.	4000.	215-00	4500.	5360.
MIN END BAL	500	500.	500.	500.	500.
TOT. OUTFLOW	65950.	86651.	85187.	91207.	92007 <b>.</b>
SUFP. UR DEF	46353.	68357.	A1634.	100058.	117574
	400000			••••	
*** CAPITAL PURCHASES **	•				
AN. LVSK PUR	44000.				
MACH. PURCH.	11000.	11000.	11000.	11000.	11000.
HLDG. PURCH.	175385.	110000		110004	••
INT. CAN PUR	230385.	11000.	11000.	11000.	11000.
SURP. OR DEF	-184032.			99658.	
*** NEW CREDIT ***	•	57357.	70536.	,,,,,,,,,	106074+
THE CREDIT TO					
FLB LOAN	163385.				
BNK NRE LOAN	54000.				
TOT NEW CRED	217355.				
*** DEBT PAYMENTS ***					
FLB PAYMENT	11419.	22495.	22495.	22495.	22445.
UNK NRE PYMT	10122.	18568.	18568.	18568.	18568.
TOT DEBT PAY	21541.	41953.	41063.	41063.	41053.
SURP. OR DEF	11812.	16294.	29573.	48595.	65511.
AO INT.	41.	•	_		
AO PRIN. PAY	1681.	0	0	0	0
*** AO LOAN BALANCES ***	•	•	v	0	v
HEG AO BAL	0	0	C	•	o
END AU BAL	10271	0	ō	0	õ
END CASH BAL	12271.	16794.	30073.	49995.	(6111.

GRADUAL	EXPANSION	TIE	STALL	ADDITION

	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
₽₽₽ CASH INFLO™S ₽₽₽					
					<b>.</b>
BEG CASH BAL COPN HAY	13031. 12500.	19222.	16712.	37735.	56590.
LVSTK MILK TUTAL INFLOW	3375. 85035. 113941.	106961. 126183.	127096. 148716.	152074.: 189809.	143473. 220563.
*** CASH OUTFLOWS ***					
HINED LAHOR	955.	6100.	6100.	10400.	10400.
REPAIRS	1519.	3306.	3346.	4069.	4059.
PURCH. FEED	3077.	3552.	4141.	4751.	4678.
PURCH. JURN			2246	1299.	5764.
SEEU	2524+	2524.	2280.	2437.	5568.
FERTILIZER CHEMICA S	5664.	5664 .	5231. 2412.	5568. 2564.	2504
CRUP INSUR.	2732.	2732. 1121.	1051.	1104.	1104
MACH. HIKE	1151.	1121. 3570.	3570+	4101.	4101
BREEDING	1767.	2038.	2376.	2726	- 5148
VET. A MED.	1514.	1747.	2037.	233+.	5398
LSN SUPPLIES	1707.	2036	2376.	2726.	5144
LVSTK• MKTG•	3029.	3444	4073.	4073.	4798
GAS+OIL+DRY	2555.	4002.	4602.	6012.	6012
ARM TAXES	<i>в</i> 30.	1409.	1404.	1726.	5103
ANM INSUR.	1015.	2070.	2070. 4209.	2703.	4420
UTILITIES	5130.	4204.	15000.	4420.	1,000
FAM. LIVING	12000.	15000.	70500	16000.	24700
LNC A SS TAX HIN END HAL	18727.	10200.	500.	500.	500
TUT. OUTFLOW	500. 65757.	500. 75875.	73800.	95516.	104141
SURP. UR DEF	47991.	50308.	74918.	94293.	111422
** CAPITAL PURCHASES *	47 M				
HR. LVSK PUR	13400.				
ACH. PURCH.	11000.	11000.	11000.	11000.	11000
SLDG. PURCH.	70515.		42210.	110001	•••
IOT. CAP PUR	9491	11000.	53218.	11000.	11000
SURP. OR DEF	-46927.	39308.	21700.	A3243.	100422
*** NEW CREDIT ***					
LB LOAN	58515.		40000.		
SNN NGE LOAN	23400.				
TOT NEW CRED	81919.		40000.		
** DEBT PAYMENTS ***					
LO PAYMENT	7865.	11833.	13202.	15940.	15940
INK NRE PYMT	8394.	11253.	11263.	11263.	11/63
TOT DEBT PAY	16254+	23096.	24465.	27203.	27.03
SURP. OR DEF	18732.	16212.	37235.	56090.	73:19
AO INT. AO HHIN. PAY	10.	. 0	Ó	0	
•	75d.	0	0	0	
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••• AU LOAN BALANCES ••		_			
+++ AU LOAN BALANCES ++ BEG AO BAL END AO BAL	0	C O	0	0 0	(

	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
•** CASH INFLOWS **	• •				
BEG CASH BAL	13031.	15758.	3091.	16123.	29837.
CORI	12500.		5000.		2903.
LVSTK MILK Total Inflow	85035. 113941.	106961.	127006.	152074. 168197.	163973. 193810.
*** CASH OUTFLOWS *	•••				
HIRED LABOR	955.	6100.	6100.	10800+	10800.
REPAIRS	1519.	5757.	5757.	6520+	6520.
PURCH. FEED	3079.	3552.	4141.	4751.	4878.
PURCH. CORN		-		1293.	5764.
SEED	2524 .	2524.	2290.	2437.	2437.
FERTILIZER	5604.	5664.	5231.	5555.	5568.
CHE MICALS	2732.	2732.	2418.	2564•	2564.
CHUH INSUR.	1121.	1151.	1051.	1104+	1104.
MACH. HINE	2467.	3570.	1570.	4101+	4101.
BHFEDING	1767.	2038.	2376.	2725.	2149. 2349.
VET. A MED. ESK SUFPLIES	1514.	1747.	2037. 2376.	2337.	2144.
LVSTK. MKTG.	1767.	2038.	4073.	2726 • 4673 •	4790.
43+01L+DRY	3025.	3444. 4602.	4602.	6012 -	6012.
FARM TAXES	2555. 870.	2175.	2175.	2492	2442.
FARM INSUR.	1015.	3002.	3002.	4235.	4235.
UTILITIES	2136.	4209.	4209.	4420.	4420.
FAM. LIVING	15000.	15000.	15000.	15000+	15000.
INC A SS TAX	18729.	4400.	700.	6000.	4450.
MIN END BAL	500.	500.	500.	500.	500%
TUT. OUTFLO₩	65750.	74824.	72199.	90265	93646+
SURP. OR DEF	47991.	47895.	6369d.	77932+	100170.
*** CAPITAL PURCHAS	ES ANI				
BR. LVSK PUR	13400.				
MACH. PURCH.	11000.	11000.	11000.	11000+	11000.
BLDG. PURCH.	172072.		42216.		
TOT. CAP PUR	197092.	11000.	53218.	11000.	11000.
SURP. OR DEF	-149101.	36895.	10480.	66932•	89170.
*** NEW CREDIT ***					
FLU LOAN	160692.		40000.		
UNK NRE LOAN	23400.	s			
TOT NEW CRED	184092.		40000.		
*** DEUT PAYMENTS *	<b>**</b>				
FLB PAYMENT	11329.	22225.	23594.	25332 .	26332.
UNK NRE PYMT	8394.	11263.	11263.	11263+	11253.
TOT DEBI PAY	19723.	33488.	34857.	37595.	37545.
SURP. OR DEF	15268.	3407.	15623.	29337+	51575.
, AO LNT. '	10.	16.	0		•
AO PRIN. PAY	758.	1891.	Ő	õ	0 0

\*\*\* AO LUAN BALANCES \*\*\*

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3891.

BEG AO BAL END AO BAL END CASH BAL

GRADUAL EXPANSION NEW TIE STALL

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	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
*** CASH INFLOWS ***					
BEG CASH BAL Corn	13031. 12500.	15477.	4686. 5000.	18024 -	36071.
HAY LVSTK MILK TOTAL INFLOW	3375. 84032. 112938.	105236. 120713.	125583. 135269.	150358. 168382.	162241. 198312.
*** CASH OUTFLOWS ***	i				
HIRED LABOR	455.	6100.	6100.	10800.	16400.
нисо скол REPAIRS Роксн. FEED Роксн. сокм	1519. 3079.	5618. 3552.	5618. 4141.	6250. 4751. 281.	6250. 4878. 5704. 2437.
SEED	2524.	2524 .	2230.	2437. 5568.	5558.
FERTILIZER Chemicals	5664. 2732.	5664.	5231. 2418.	2564.	2564. 1104.
CHOP INSUR.	1121.	1121.	1051.	1104. 4101.	4101.
HACH. HIKE	2467.	3570.	3570. 2376.	2726.	2144.
BREEDING Vet. A med.	1757.	2038. 1747.	2037.	2337.	2344. 2744.
LSK SUPPLIES	1707.	2038.	2376.	2126. 4673.	4746.
LVSTK. MKTG.	3029.	3474. 4502.	4073. 4602.	6015.	6012.
GASIOILIDRY Farm taxes	2555. 840.	2014.	2014.	2245.	2245.
FARM INSUR.	1012.	3242.	35-2.	3144.	4420.
UTILITIES	2130.	4209。 15000。	4299. 15000.	15000.	15000.
FAM. LIVING 1NC A SS TAX	12000. 18729.	4,++ ÚÚ .	ной.	54UJ.	4750. 590.
MIN END BAL	500.	500.	500.	A7634.	92932.
TOT. OUTFLOW	65950.	74204.	71679.		100.180
SURP. OR DEF	46988.	46509.	63590.	80743.	105380.
• • • CAPITAL PUNCHASES	* • *				
HR. LVSK PUR	13460.				
мАСН. Ринсн. Всоб. Ринсн.	11000. 151310.	11000.	11000. 30H0U.	11000.	11000-
TUT. CAP PUR	175710.	11000.	41-100.	11000.	11000.
SURP. OF DEF	-128722.	35509.	21740.	69743.	94380.
*** NEW CREDIT ***					
FLB LOAN	139310.		24000.		
BNK NRE LOAN	23400.		-		
TUT NEW CRED	162710.		28000 ·		
DENT PAYMENTS					
FLB PAYMENT	10604.	20050.	21003.	22904.	22409.
BNK NHE PYMT	8394.	11263. 31313.	11263.	11263.	11203.
TOT DEBT PAY	18998.	212121	32266.	34172.	34172.
SURP. OR DEF	14990.	4196.	17524.	35571.	60208.
AO INT. Ao Phin. Pay	13. 591.	10. 1162.	0	0	0
*** AO LOAN BALANCES *	**				
UEG AO BAL	0	0	0	o	0
END AG BAL END CASH BAL	15477,	0 4585.	1605**	0 36071.	60708.

GRADUAL EXPANSION NEW FREE STALL

### Financial Analysis

As discussed previously, the two important areas in analyzing an investment are the investment's liquidity effects and its long range profitability. For each of the alternatives investigated in this study, monthly cash flow statements were constructed for the first five years of the planning span. Minimal cash flow problems occurred in any of the alternatives. This result was not unexpected because dairying, unlike many other farm enterprises, produces a steady stream of funds which aids in reducing liquidity problems.

The criterion used to determine long range profitability is the aftertax internal rate of return (IRR). The IRR is that discount rate "i" which equates the following formula:

$$V = \sum_{t=0}^{T} \frac{NR t}{(1+i)} t$$

where "V" is the investment cost and NR is the forthcoming after-tax cash flows in years t through T. Cash flows include all cash inflows relating to the enterprise and all cash outflows for expenses, family living and taxes, but not financing.

If the IRR for an investment is greater than the loan rate on funds borrowed for the investment, the investment will yield some profit in an accounting sense. However, assuming there is a limited supply of investment funds available to the investor, an investment will be profitable in an economic sense only if its IRR is greater than the IRR from any alternative use of those funds since these alternatives represent the opportunity cost of the funds for any particular investment.

In the two cases where additions to the present facilities are being made, NR  $_{\rm t}$  is the difference between the cash flows for the benchmark 40 cow situation and the cash flows for the expanded situation; that is, returns from the additional 40 cows are being related to the investment costs associated with the additional 40 cows. In alternatives where all new facilities are constructed, the opportunity cost of the present 40 cow herd must be included as part of the investment cost. The prices used are as follows: cows - \$1,000, bred heifers - \$800, heifers - \$500 and calves - \$100.

In all instances, the investment has some value at the end of the planning span which is considered a cash inflow in year 30. Facilities are valued at 15 percent of the original value and cattle at the following prices: cows - \$1,000, bred heifers - \$800, heifers - \$500 and calves - \$100.

The stream of after-tax returns for each alternative is listed in table 19. The IRR for each alternative, along with sensitivity analysis for varying changes in original investments are found in table 20.

Table 19. Annual after-tax returns to investment and management for each alternative.

				Alte	rnative				
Year	Benchmark 40 Cow	Rapid Tie Stall Addition	Change From Benchmark 40 Cow	Rapid Tie Stall New	Rapid Free Stall New	Gradual Tie Stall Addition	Change From Benchmark 40 Cow	Gradual Tie Stall <u>New</u>	Gradual Free Stall New
1	\$17,508	\$ 35,153	\$17,645	\$ 21,635	\$ 19,965	\$ 35,152	\$17,645	\$ 21,634	\$ 20,628
2	22,312	51,551	29,238	34,141	30,278	18,796	-3,517	6,313	5,214
3	32,329	50,409	18,090	41,689	39,034	3,698*	-28,631	-8,219*	2,296*
4	23,541	54,037	30,496	49,357	44,777	44,268	20,727	36,001	36,911
5	27,742	47,865	20,123	46,835	42,771	46,122	18,380	44,525	43,501
6	26,942	50,265	23,323	44,835	38,321	43,022	16,080	38,125	36,001
7	26,942	50,265	23,323	41,502	37,571	43,022	16,080	36,182	34,820
8	34,579	57,902	23,323	49,139	45,208	50,659	16,080	43,819	42,457
9	34,579	57,902	23,323	49,139	45,208	50,659	16,080	43,819	42,457
10	34,579	57,902	23,323	49,139	45,208	50,659	16,080	43,819	42,457
11	34,579	59,692	25,113	50,929	46,998	52,449	17,870	45,609	44,247
12	34,579	59,692	25,113	50,929	46,998	52,449	17,870	45,609	44,247
13	34,579	59,692	25,113	50,929	46,998	52,449	17,870	45,609	44,247
14	34,579	59,692	25,113	50,929	46,998	52,449	17,870	45,609	44,247
15	34,579	59,692	25,113	50,929	46,998	52,449	17,870	45,609	44,247
16-29	40,460	65,573	25,113	56,810	52,879	58,330	17,870	51,490	50,128
30	40,460	127,500	87,040	187,613	17,894	119,536	79,076	180,812	174,661
		,	· · ·		178895		•		

<sup>\*</sup> In gradual expansion situations, the investment occurring in year 3 is treated as a cash outflow in year 3 in determining the internal rate of return.

Table 20. A sensitivity analysis of the after-tax internal rate of return on investment alternatives by changes in the investment for each of the alternatives.\*

		Cha	nge In	Investmen	t Cost	
<u>Alternative</u>	Investment Cost	<u>–20</u>	<u>-10</u> interna	<i>NO</i> <u>CHANGE</u> al rate of	<u>+10</u> return-	+20
Rapid tie stall (add)	\$149,636	19.0	17.0	15.4	14.4	12.8
Rapid tie stall (new)	308,609	17.0	15.5	14.0	12.8	11.5
Rapid free stall (new)	276,685	17.5	15.7	14.2	13.0	12.0
Gradual tie stall (add)	83,918	16.0	14.4	13.2	11.5	10.6
Gradual tie stall (new)	242,892	16.0	14.4	13.1	12.0	11.1
Gradual free stall (new)	221,510	17.1	15.5	14.1	13.0	12.0

Assumes zero change in tax situation.

### SUMMARY AND RECOMMENDATIONS

In this study, the managemental effects, investment costs and feed and labor requirements of six dairy farm expansion alternatives were compared. Monthly and annual cash flows were then developed and the after-tax internal rate of return was determined for each investment alternative.

Generally, milk production and other managemental factors are most adversely affected by rapid expansion or a change in facilities from a tie stall operation to a free stall operation. It was shown, however, that facility investment costs are lower for the alternatives in which construction occurred in one stage as opposed to the gradual, two-stage construction, and that investment costs for the free stall operations are less than for the comparable tie stall operation.

More man-hours of labor are required in the tie stall operations than in the free stall operations. If the employee is assumed fully employed in each system, less time is required of the owner/manager to do chores in the free stall operations than in the tie stall operations, allowing more time to actually manage the operation. If the limiting constraint on the size of the expanded herd is the labor hours available, more cattle can be cared for in a free stall system than in a tie stall system with a given amount of labor.

Monthly cash flows were developed for the first five years of each alternative and annual cash flows were projected for the remainder of the 30 year planning span. While an initial decrease in milk production can be expected in all expansion situations, no liquidity problems occurred in any of the altrnatives investigated.

The after-tax internal rate of return was used as the profitability measure, allowing for easy comparisons between investment alternatives. All alternatives could be termed profitable in an accounting sense; that is, the interest rate on the borrowed funds is below the lowest IRR of 13.1 percent, which was for the gradual expansion to a new tie stall facility.

When facilities are added on to the present facilities, the IRR for for rapid expansion tie stall addition is 15.4 percent as opposed to 13.2 percent for the gradual expansion tie stall operation. This suggests that rapid expansion in this situation would be most profitable.

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When new facilities must be constructed, the IRR for the rapid expansion tie stall and free stall operations and the gradual expansion free stall operation are all approximately 14 percent, suggesting that all are equally profitable investments. The IRR for the gradual expansion tie stall is 13.1 percent which indicates this would be the least profitable means of expansion for the alternatives studied.

Changes in the initial investment costs, while changing the IRR for each alternative, did not alter the above comparisons.

Using Minnesota farm based data, this study attempted to realistically simulate dairy herd expansion under six different conditions. An insufficient amount of work has been done in this area, however, and the following areas need to be investigated more thoroughly:

(1) What are the specific reasons for the managemental effects expected in a herd expansion? The most recent Minnesota data was used in this study, however, much of the work done in the area of expansion effects has lead to inconclusive results. Knowing that milk production can be expected to decrease initially is not as much help in planning for an expansion as knowing the causes for the decrease. Defining the reasons for the adverse effects which occur would aid in lessening or avoiding them.

(2) Is dairy herd expansion actually occurring in what this study indicates to be the most profitable ways? If not, why?

(3) Currently, computer programs are available to assist in the development and investigation for most of the areas covered in this study. A dairy herd expansion simulation model which would involve both the managerial and financial areas of the expansion would be a valuable management tool for farmers considering an expansion.

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#### INDUSTRY CONTACTS

Acorn Equipment Company, P. O. Box 207, Stevens Point, Wisconsin 54481.

Bergman Silo, Maple Plain, Minnesota 55359.

Bush, Elmer, Livestock Systems Contractor, Jordan, Minnesota 55352.

Dairy Equipment Company, P. O. Box 8050, Madison, Wisconsin 53708.

The De Laval Separator Company, 5724 North Pulaski Road, Chicago, Illinois 60646.

Lester's of Minnesota, Lester Prairie, Minnesota 55354.

Wick Agri Buildings, Box 38, Mazomanie, Wisconsin 53560.

### APPENDIX

Monthly Cash Flows For Each Alternative During The First Five Years Of Expansion

		TOTAL	13031. 12500. 3375.	78351. 107257.		955°	2439.	5004 .	2732.	2-67.	, 20 C	1339 <b>.</b>	2555.	880. 1012.	2135.	18129	506. 63634.	4362 F.		11000.	32627.		5881. 7537. 13518.	19109.	7. 812.			- 1000 -
		DEC	<u></u> و	6610. 22846.		5	203.	<b>.</b>	03	0.11	100.	117.	126.	00	179.	5	500. 2614.	20228.		00	20228.		490. 636. 1127.	19102.	00			14602.
		NON	19185. 7500. 0	6618. 33303.		36	203.	00	~	1233.	100.	117.	383.	• •	178.	۰ n	500. 5440.	27863.		11000.	16863.		490. 636. 1127.	15736.	00			16230.
		001	17215. 0 0	6595. 23810.		38	203.	•00°	00	0	100.	117.	456.	440.	178.		500. 3998.	19612.		00	19812.		490. 636. 1127.	18685.	00			19195.
		SEP	123	6677. 20800.		36	203.	00	00	0	100.	117.	256.	0 0	178.	0	500. 2958.	17841.		00	17841.		490. 636. 1127.	16715.	00			17215.
		AUG	10901. 0 0	6806. 17707.		- 96	203.	00	00	· •	100.	20	່ທີ	••	178.	5	500- 2958.	14749.		00	14749.		490. 636. 1127.	13623.	00			14123.
		JUL	6	7796. 14486.		36	203.	00	00	2	00	117.	256.	00	178.	2	500 <b>.</b> 2958.	11528.		00	11528.		490. 636. 1127.	10401.	000			10501.
PROGRAM: ET Yr1		NUL	2546. 0 0	7729. 10275.		36	203.	• •		, 117	100.	117.	256.	00	178.	• • • •	500. 2458.	7317.		00	7317.		490. 636. 1127.	6190.	••		¢ 0	6690.
AGRICULTURAL ECONOMICS PROGRAM Rojected Cash Flow Budget 0 cow Stable Herd Size Yri 8-20-79		YAY	2168. 2500. 0	6844. 11512.		ື້	203	11	2592. 0	1233.	100.	117.	256.	•077	178.	3	500. 8340.	3172.		00	3172.	,	499. 636. 1127.	2046.	00			2545.
ULTURAL E TED CASH STABLE H 79		АРК	670. 0 3375.	586U. 9905.		0,0,	203	2832.	140.	0 2 1 1	100	117.	128.	00	178.	• • •	500. 711v.	2794.		00	2794.		490. 636. 1127.	1668.	00		00	2168.
AGRIC PROJEC 40 CON 08-20-		MAR	500. 0 0	6429 <b>.</b> 6929.		0 1 7	203.	1116.	00	0 2 1 1	100-	117.	128.	00	178.	• •	500- 4814-	2115.		00	2115.		490. 636. 1127.	988.	7. 812.		612. A	670.
A F F S I		FEB	15131. 2500. 0	5042. 22673.		0	203.		00	0 0 0	100	117.	128.	0 1012.	178.	18729.	500. 22359.	314.		00	314.		440. 636. 1127.	-812.	60		0 +12.	500.
ISION AID M MANAGEM ON SERVIC MINNESOT	0#C == +	NAU	13031. 0 0	5345. 18376.	-045 ***	0	203.		00	0 211	100.	117.	128.	00	178.	• •	2618.	15754.		90	15758.	ENTS BOR	490. 635. 1127.	14631.	C ÷	<i>i</i> h	00	.16121
COMPUTER DECISION AIDS EXTENSION FARM MANAGEMENT AGRI. EXTENSION SERVICE UNIVERSITY OF MINNESOTA	*** CASH INFLOWS		HEG CASH BAL Cohn Hay	LVSTK MILK TOTAL INFLOW	*** CASH OUTFLOWS	HIRED LABOR	HUNCH. FEED	SEEU FERTILIZER	CHEMICALS CROP INSUR.	MACH. HIKE	VET. A MED.	LSK SUPPLIES	645+0IL -DRY	FARM TAXES FARM INSUR.	UTILITIES	INC A SS TAX	MIN END BAL TOT. OUT+LOW	SUMP. OR DEF	••• CAPITAL PURCHASES	MACH. PURCH. Tot. Cap Pur	SURP. OR DEF	••• DEBT PAYMENTS	FLB PAYMENT GNK NRE PYMT TOT DEBT PAY	SURP. OR DEF	ACC. AO INT. Ao Prin. Pay	*** AJ LOAN BALANCE	שרט שט אשר ביט שט אשר	164 - F. 8. 0 - 5 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6

COMPUTEN DECISION AIDS EXTENSION FARM MANAGEMENT AGRI. EXTENSION SERVICE UNIVERSITY OF MINNESOTA	ISION AI M MANAGEN ON SERVIC MINNE SO1	DS HENT Ce Ta	AGRIC PROJEC 40 CON	CULTURAL E CTED CASH STABLE H -79	AGRICULTURAL ECONOMICS PROGRAM: Rojected Cash Flow Rudget O cow Stable Herd Size yr2 8-20-79	PROGRAM: SET YRZ							
*** CASH INFLOWS	*** SR0												
	NAU	FE8	MAR	APR	YAM	NOC	JUL	AUG	SEP	0CT	NON	DEC	TOTAL
BEG CASH BAL Corn Hay	19602. 0 0	22462. 4500.	12677. 0 0	12439. 0 7875.	17891. 4500.	19244. 0 0	22762. 0 0	26339. 0 0	-07945 0 0	33404°	35884. 0 0	25566. 0	19602. 9000. 
LVSTK MELK TOTAL INFLOW	6355. 25957.	6271. 33233.	5773. 18450.	5549. 25963.	6610. 29001.	7353. 26597.	7411.	7466. 33805.	7269. 37239.	7137.	7030. 42914.	0 6325. 31891.	10649. 117126.
*** CASH OUTFLOWS	LOWS ***												
HIRED LABOR	0	0	0	0	136.	136.	136.	136.	136.	136.	136.	0	455 <b>.</b>
REPAIRS PURCH. FEED	76. 203.	76. 203.	76. 203.	152. 203.	152. 203.	152 <b>.</b> 203.	152.	152.	152.	152.	152.	76.	1519.
SEED FFUT117FD	00	00	1237.	1471.	0	•			• • •			• 0 0	2709.
CHEMICALS	00		0	- 0462 - 06	2970.	00		- 0	- <b>-</b>	.83. 0	0 0	0 3	5880. 3060.
CROP INSUR. MACH. HIRE	• •	00	00	0 0	0	о с	00	00	00	00	1152.	5	1152.
9NIG33HH	117.	117.	117.	117.	117.	117.	117.	117.	117.	117.	117.	117.	1394
VEL. A MED. LSA SUPPLIES	100.	117.	117.	117.	100.	100.	100.	100.	100.	100.	100.	100.	1200. 1200.
LVSTK. MKTG.	200-	200.	200.	200.	200.	200.	200.	200-	200-	200	200	200	2349.
GASHULLOUR	128.0	168.	128.0	0 0	256 <b>.</b> 440.	256 <b>.</b> 0	256 <b>.</b> 0	256. 0	256 <b>.</b> 0	255. 440.	383. 0	128.	2555 <b>.</b> **?
FARM INSUR.	0	1012.	0	0	0		0	0	0	0		00	1012
	1250.	1250.	178.	1/8. 1250.	178.	178.	178.	178.	178.	178.	178.	178.	2135. 15000.
INC × SS TAX MIN FND HAI	500-	16050. 500.	0 500-	500.	500	0 7004	0 2003	0 0	0	0	0	0	16050.
TOT. OUTFLOW	2868.	19930.	5384.	7446.	9130.	3208.	3208.	3208.	3208.	•031.	5721.	-2868.	-000 64711.
SURP. OR DEF	23089.	13303.	13066.	18510.	19871.	23389.	26965.	30596.	34031.	36511.	37193.	29023.	52415.
*** CAPITAL PI	PURCHASES	:											
HACH. PURCH. TOT. CAP PUR	00	80		00	00	00	00	00	00	00	11000. 11000.	00	11000. 11000.
SURP. OR DEF	23089.	13303.	13066.	18518.	19871.	23389.	26965.	30596.	34031.	36511.	26193.	29023.	41415.
••• DEBT PAYMENTS	ENTS ***												
FLB PAYMENT BNK NRE PYMT Tot deut pay	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	5881. 7637. 13516.
SURP. UR DEF	21962.	12177.	11939.	17391.	18744.	22262.	25839.	29470.	32904.	35384.	25066.	27897.	27437.
ACC. AO INT. Ao Prin. Pay	00	00	00	<b>0</b> 0	• •	00	00	00	00	00	00	00	60
*** AO LOAN BALANCES													
BEG AO BAL Eric An BAL		00		00		00	00	• •	00	00	••	• •	50
EVU CASH BAL	22462.	12677.	12439.	17891.	19244.	22762.	26339.	29970.	33404.	35484.	25566.	z8397.	28347.

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	TOTAL	28397. 23334. 1575. 85431. 138737.		955. 1519.	2439.	5480. 3050. 1152.	2467	1200	- 244. 2444		1012.	15000. 18450.	500.	71226.		11000.	60226.		5881. 7637. 13518.	46708.	00		0 0 4 7208.		
	DEC	43679. 0 7024. 50703.		76	203. 0	<b></b>		100.	200.	• e > I	178	1250.0	500. 2868.	47834.		00	47834.		490. 636. 1127.	46708.	00		0 0 47208.		
	NON	53878. 0 7148.		136. 152.	e e	0 0 1152.	1233.	1001	200-	••••	178	1250.0	500. 5721.	55305.		11000.	44305.		490. 636. 1127.	•9119.	00		0 0 43679.	r.	
	0CT	46922. 4334. 1279. 58536.		136. 152.	203 <b>.</b>	.086 0 0		100.	-002	440.	178	•0521 0	500. 4U31.	54505.		00	54505.		490. 636. 1127.	53378.	00		0 0 53878.		
	SEP	43258. 0 7499. 50757.		136. 152.	-503	000		100.	200.	• • • • •	178.	1250. 0	500. 3208.	47549.		• •	47549.		490. 636. 1127.	46422.	00		0 0 46922		
	AUG	34881. 4750. 0 7462. 47093.		136. 152.	03	000	1	1001	200-	0	178	1250.	500. 3208.	43884.		00	43884.		490. 636. 1127.	42758.	00		0 0 43258•		
	JUL	31351. 0 7364. 38715.		136. 152.	0	000		100.	200.	• • • • •	178	•0571 0	500. 3208.	35507.		00	35507.		490. 636. 1127.	34381.	00		0 0 34881.		
PROURAM: SET YR3	NUL	23554. 4750. 6882. 35186.		136 <b>.</b> 152.	е 0	<b></b>	0	000	200	•00.3	178	1<50.	-002 3208.	31978.		• •	31978.		490. 636. 1127.	30451.	00		0 0 31351		
AGRICULTUHAL ECONOMICS PROGRAM Rojected Cash Flow Rudget O cow Stable Herd Size Yr3 (8-21-79	MAY	26542. 0 6769. 33311.		136. 152.	203.	1279. 2970. 0	1233.	100	200.	440.	178	.0c21	500. 4130.	24181.		00	24181.		490. 636. 1127.	23054.	00		0 0 23554.		
CULTURAL E CTED CASH STABLE F 79	APR	21403. 4750. 1575. 6880. 34614.		0 152.	203.	- 0462 - 06	5	181	200.		178	.UC21	500. 7446.	27169.		• •	27169.		490 <b>.</b> 636. 1127.	26042.	00		0 0 26542.		
AGRIC PROJEC 40 COV	MAR	20119. 0 7295. 27414.		76.	4 1237.	1274. 0 0	0	100.	200.	• 0 0 7	0 178.	•0c21	500. 5384.	22030.		õo	22030.		490. 636. 1127.	20903.	00		0 0 21403.		
SS AENT A	FE8	32185. 4750. 0 6540. 43475.		76.	-503		0 2 1 1	100.	200		1016.	1880.	-002 22730.	20145.	÷	• •	20745.		490. 636. 1127.	19619.	80	<b>.</b>	0 20119.		
TISION AID MANAGEM MANAGEM MINNESOT MINNESOT	NAU	28397. 0 7283. 35680.	OUTFLOWS ***	0	•£02		0,11	100	200.	0	178.	•0 0	500. 2868.	32812.	PURCHASES	00	32812.	AYMENTS ***	490. 636. 1127.	31685.	00	BALANCES *	0 0 32185.		
COMPUTER DECISION AIDS EXTENSION FARM MANAGEMENT AGRI. EXTENSION SERVICE UNIVERSITY OF MINNESOTA *** CASH INFLOWS ***		BEG CASH BAL Corn Hay Lustk Milk Total Inflow	SH	HIRED LABOR Repairs	PURCH. FEED SEED	FERTILIZER CHEMICALS CROP INSUR.	MACH. HIRE	VET. A MED. • EX SUDALTES		FARM TAXES	FAMM INSUR. UTILITIES	INC A SS TAX	MIN END BAL 101. OUTHLOW	SUMP. OR DEF	*** CAPITAL P	MACH. PURCH. Tol. Cap Pur	SURP. OR DEF	••• DEBT PAYM	FLB PAYMENT BNK NRE PYMT Tot debt pay	SURP. OR DEF	ACC. AO INT. Ao Prin. Pay	*** AO LOAN B	BEG AO BAL End Ao Bal End Cash Bal		

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CUMPUTER DECISION AIDS EXTENSION FARM MANAGEMENT AGRI. EXTENSION SERVICE UNIVERSITY OF MINNESOTA	ISTON ALC M MANAGEM DN SERVIC MINNESOT	SS E N T A	AGRIC PROJEC 40 COW 08-21-	AGPICULTURAL ECONOMICS PROGRAM: Rojected Cash flow budget 0 cow staule herd size үк <del>4</del> A-21-79	CONOMICS Flow Budg Erd Size	РRО6РА <b>м:</b> Е Т ҮК4 <mark>4</mark>							
CASH INFLOWS	0#S + * *												
	NAU	FEB	MAR	APR	MAY	NUL	JuL	AUG	SEP	001	NON	DEC	1014
REG CASH BAL CORN	47208. 0	50158. 4750.	30023. 0	30654. 4750.	36330. 0	33562. 4750.	41436. 0	44646. 4750.	52962. 0	56614. 4104.	63592. 0 0	0 0 27565	47208. 23104.
LVSTK MILK 101AL INFLOW	6445. 53653.	6521. 61429.	6647. 36670.	7418	7077. 43407.	6958. 45270.	7045. 48481.	7491.	0 7486. 60448.	0 7521. 68239.	7308.	7184.	95611. 155840.
•** CASH OUTFLOWS **	LOWS ***					÷							
HINED LABOR	0	0	°,	0	136.	136.	136.	136.	136.	136.	136.	0	455 <b>.</b>
HEFAIHS PUKCH. FLEU	203.	203.	203.	203	203.	203	203.	203	152. 203.	203.	152. 203.	76. 203.	1519.
PURCH. HAY SEED	00	••	0 1237.	01471.	88. 0	00	00	00	0 <b>0</b>	00	30	• •	2010.
FERTLIZER CHEMICALS	00	•	1279.	2940. 00	1279.	00	00	90	00	383.	00	0 3	5440.
CHEMICALS	• •	• •	• •	• • •	.0162					00	1152.	<b>)</b>	Junu. Iloč.
MACH. HIME Hateoing	0 117.	.117.	0 0	0,111.	1233.	117.	0 117.	0 0	0 117-	0	1233.	0 0	2467.
V+1. A MED.	100.	100.	100.	100	100.	100	100.	100.	160.	100	100	100.	1206.
LOK SUPPLIES LVSIK. MATG.	200.	200.	200.	200.	200.	200.	200.	200.	200.	200-	200.	200.	1344. 2344.
GASOTLONY FANN TAXES	128.	128.	124.	120.	256.	د56 <b>.</b>	256. ^	256.	256.	256.	383 <b>.</b>	123.	2555. 440
FARM INSUR.	0	1012.	0	0	.0	00	00	00	00	• 0	5 5	0	1012.
UTILITIES FAM. I IVING	178.	178.	178.	178.	178.	178.	178.	178.	1240-	178.	178.	1250-	2136. 15000-
ILC A SS TAX	0	26900.	2	0	0	0	) )	2	L L		0	2	26900.
MIN FNU HAL TUT. OUTFLOW	500. 2868.	-005 30/80.	500. 5384.	500. 7446.	500. 9218.	500. 3208.	500. 3208.	500. 3208.	500. 3208.	500. 4031.	500. 5721.	500. 2858.	500. 75649.
SURP. OR DEF	50785.	30649.	31286.	36957.	34189.	42062.	45272.	53589.	57240.	64208.	65158.	57858.	P1249.
••• CAPITAL PURCHASES	UPCHASES	*											
MACH. PURCH. TUT. CAP PUR	00	00	00	00	00	00	00	00	00	00	11000.	00	11000.
SUPP. OR DEF	50785.	30649.	31286.	36957.	34189.	42062.	45272.	53589.	57240.	64208.	54168.	57858.	70249.
••• DEBT PAYM	PAYMENTS ***												
FLB PAYMENT HNK NRE PYMT TOT DEBT PAY	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	5881. 7637. 13518.
SURP. OH DEF	4965H.	29523.	30159.	3583u •	33062.	40936.	44146.	52462.	56114.	63082.	53042	•16732	56731.
ACC. A0 INT. A0 PPIN. PAY	••	<b>0</b> 0	00	00	00	00	00	00	00	00	30	00	••
••• AU LUAN BALANCES		:											
HFG AN HAL F.C. A.1 HAL F.L. F.A.M. HAL	0 0 154.	0 0 30063.	0 0 306542	0 0 36340	0 0 33562	0 0 41436.	0 0 0 0 0 0 0	0 0 523420	0 0 56514.	0 9 9 9 9 9 7 9 7 9 7 9 7 9 7 9 7 9	0 0 53547.	0 0 0	0 0 0 12/2

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		TOIVI	57231. 23104.	P1049. P7049. 148734.		÷55.	1519.	5109.	5869 <b>.</b> 2000	1152.	2457.	1200.	2344.	2555 <b>.</b> 2555	1012.	2134.	15000. 24690.	-00c 73261.	95473.		11000.	P4473.		5881. 7637. 13518.	70455.	00		0 0 71~55~
		, DEC ,	67596. 0	7354.		Ô	76.	2	00	00	0	100	200.	128.		78	v	500. 2868.	72081.		00	72081.		490. 636. 1127.	70955.	00		0 0 71455•
		NON	77465. 0	1478. 84943.		136.	152.	0	00	1152.	117.	100.	200	383.		178.	u u	500. 5721.	74222.		11000. 11000.	68222.		490. 636. 1127.	67096.	00		0 0 67596.
		001	69811 <b>.</b> 4620.	0 7691. 82123.		136.	152.	0	383 <b>.</b>	00	0.0	100.	200-	256.	• 0	178.	• 0 = 1	500. 4031.	78092.		00	78092.		490. 636. 1127.	76465.	00		0 17465 <b>-</b>
		SEP	65990. 0	0 7656. 73646.		136.	152.	0	00	0	0	100.	200.	256.	00	178.		500. 3208.	70438.		00	70438.		490. 636. 1127.	.11669	00		0 0 69811•
		AUG	57633. 4621.	7571. 69825.		136.	152.	0	0 0	00	117.	100.	200.	256.	20	178.	0 0	500. 3208.	66616.		00	66616.		490. 636. 1127.	65490.	00		0. 65990 •
		JUL	54252. 0	7215.		136.	152. 203.	0	0 0	0	.711	100.	200.	256.		178.	4	500. 3208.	58259-		00	58259.		490. 636. 1127.	57133.	00		0 0 57633.
FROURAM: ET YRS		NUL	46338. 4621.	7128. 58087.		136.	152. 203.	0	0 0	0	0 117.	100.	200.	256 <b>.</b>	90	179.	• • • • • •	500. 3208.	54879.		00	54879.		490. 636. 1127.	.53752	80		0 54252
CONOMICS FLOW BUDG TERD SIZE		MAY	+8848+ 0 0	7247. 56095.		136.	152.		1279.	0	117.	100.	200.	256.	• •	178.	• nr > 1	500. 9130.	46965.		00	46965.		490. 636. 1127.	45838.	60		0 6 46338.
AGRICULTURAL ECONOMICS PROGRAM: PROJECTED CASH FLOW RUDGET 40 COW STABLE HERD SIZE YRS 08-21-79		APR	43361. 4621.	7588. 56920		0	152.203.	1471.	2940. 011.	0	117.	100.	200.	128.		178.	0	50U. 7446.	49475.		90	49475.		490. 636. 1127.	+8348+	Ф.Ф		0 0 99884 *884
A GR IC PROJEC 40 COW 08-21-		MAR	42557. 0 0	6815. 49372.		0	76. 203.	1237.	1279.		0	100.	200.	128.	00	178.		500. 5384.	43988.		00	43988.		490. 636. 1127.	42861.	00		0 0 43361 •
ENT E		FEB	60351. 4621.	6691. 71663.		0	76. 203.	I	•	00	117.	100.	200.	128 <b>.</b>	1012.	178.	24600.	500. 28460.	<b>43183.</b>	*	<b>0</b> 0	43183.		490. 636. 1127.	42057.	00	:	0 42557.
ISION AID M MANAGEM ON SERVIC MINNESOT	0#S ***	JAN	57231. 0	6615. 63846.	FOWS ***	0	76. 203.	0	00		117.	100.	200	126.	00	178.		500. 2868.	60974.	PURCHASES	00	60978.	ENTS ***	490. 636. 1127.	59851.	00	BALANCES 🛉	0 0 60351.
COMPUTEN DECISION AIDS EXTENSION FARM MANAGEMENT AGRI. EXTENSION SERVICE UNIVERSITY OF MINNESOTA	*** CASH INFLOWS		BEG CASH BAL Corn	LVSTK MILK TOTAL INFLOW	*** CASH OUTFLOWS	HIRED LABOR	REPAIRS Purch. Feed	SEED	FEWILIZER FHEMICALS	CHOP INSUR.	MACH. HIME Breeding	VET. A MED.	LVSIX. MKIG.	UAS.01L.0PY	FANN INSUR.	UTILITIES Fam. Fluing	INC A SS TAX	MIN END BAL TOT. OUTFLOW	SURP. UN DEF	*** CAPITAL P	MACH. PURCH. TOT. CAP PUR	SURP. UR DEF	*** DEBT PAYMENT	FLB PAYMENT BNK NRE PYMT TOT DEBT PAY	SURP. ÜR DEF	ACC. AO INT. AO PRIN. PAY	*** AO LOAN B	НЕ 6 АО НАL Его ао наl Его сази наl

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COMPUIEN DECISION AIDS Extension Farm Management Agri. Extension Service University of Minnesota	SION AID MANAGEM N SERVICI MINNESOT	សភាគ N T	AGRIC1 PR0JEC1 RAPID E 08-20-7	AGRICULTURAL ECONOMICS PROJECTED CASH FLOW BUDY Rapid Expand TIE STALL / 08-20-79	CONOMICS P Low Budge Stall Ad	5 PROGRAM: JGET ADD. YR1							
*** CASH INFLOWS	*** SM(												
	NAL	FEB	MAR	APR	MAY	NUL	JUL	AUG	SEP	0CT .	NON	DEC	TOTAL
BEG CASH BAL Cofin Hay Everk Milk	13031. 0 5245.	15031. 2500. 0 5080.	500. 0 0 5677.	500. 0 2025. 5827.	500. 2500. 6940.	5 0	3768. 0 7231.	7359. 0 7194.	10913. 0 7083.	1548. 0 7015.	2271. 0 12627.	5340. 0 16927.	13031. 5000. 2025. 93895.
INFLOW	18276.	22611.	6177.	352	9940	7549.	•66601	14553.	66	m	898	2267	451
*** CASH OUTFL	LOWS ***					,							
L AB	~	0 76.	0 76.	152.	136. 152.	136. 152.	136. 152.	136. 152.	136. 152.	136. 152.	136.	0 76.	455. 1514. 1514.
PURCH. FEED SEED	203. 0	208. 0	208. 1080.	208.	213. 0	r L		20	t U		• 0 0	00	2524.
FERTLIZER CHEMICALS	000	000	1116. 0	832 140	1116. 2592.	000			000	• • • •	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		2732
CRUP INSUR. MACH. HIKE				00	0 1233.		00			1	1233.		2457
HREDING VET. A MED.	117.	120.	120. 102.	120. 102.	122. 105.	122.	125.	125.	128.	187.	242.	239.	16/1
LSK SUPPLIES LVSTK. MKTG.	117.200.	120. 205.	1,20.205.	124. 205.	122. 210.	102	125. 215.	122	282	$\infty \sim 1$	415.		- 50 - 50 - 50 - 50 - 50 - 50 - 50 - 50
GAS+OIL+URY FAMM TAXES	128.	128.	128. 0	120.0	256.	s S	256. 0	9 0	5	n 4	• 5 H 5	• • • • •	440.
FARM INSUR-	178-	1012.	0 17A.	0 176.	0 178.	178	178	178	178	0 178.	0 176.	178	1312. 2135.
FAM. LIVING	1000.	1000	1000.	1000.	1000.	1000.	1000.	0	1000.	1000.	0	1000. 6	12JU0. 18729.
JNC A 35 TAX MIN END BAL TUT. OUTFLOW	500. 2618.	22377.	500. 4832.	500. 7128.	500. 8377.	500. 2995.	500. 3013.	500. 3013.	500. 3032.	500- 4440-	500. 6232.	500. 3391.	500. 65450.
SURP. OR DEF	15658.	234.	1345.	1224.	1563.	4554.	7985.	11539.	14964.	4123.	8555.	18876.	4801.
*** CAPITAL PI	PURCHASES	*											
НА. LVSK PUR Масн. Р∪йсн. ⊎LDG. Р∪йсн. 101. Сар PUR						0000		0000	0 105136. 105136.	25500. 0 25500.	19000. 11000. 0 30000.	<b>000</b> 0	44500. 11000. 195136. 163636.
SURP. OR DEF	15658.	234.	1345.	1224.	1563.	4554 .	7985.	11539.	-90172.	-21377.	-21334.	18976.	-112635.
· NEW CREDI	• • •												
FLB LOAN BNA NRE LOAN TOT NEW CRED		000	000	000	000	000	000	000	93136. 0 93136.	25500. 25500.	0 290062 • 00062	000	93136. 54500. 147635.
*** DEBT PAYM	MENTS ***												
FLB PAYMENT BNK NRE PYMT TOT DEBT PAY	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	1279. 636. 1916.	1279. 1073. 2352.	1279. 1547. 2826.	1279. 1547. 2826.	9038. 9894. 18932.
SURP. OR DEF	14531.	-893.	218.	.19	437.	3427.	6859.	10413.	1048.	1771.	4840.	16050.	16069.
ACC. AO INT. Ao Prin. Pay	00	00	7. 211.	6. 91.	5. 432.	1. 159.	00	<b>.</b> .	00	<b>0</b> 0	30	00	19 <b>.</b> 893.
••• AO LOAN B	BALANCES	:											
HEG AO HAL END AO HAL END CASH BAL	0 0 15031	0 649 500	893. 682. 500.	682. 591. 500.	591. 159. 500.	159. 0 3768.	0 0 7359.	0 0 10913.	0 0 1548.	0 0 2271.	υ 0 5340.	0 1 16550 •	0 0 16550.

COMPUTER DECÍSION AIDS Extension Farm Mangement Agri. Extension Service University of Minnesota	CISION ALI TH MANAGE ION SERVIC MINNESO1	DS JENT TA	AGRIC PROJEC RAPID 08-20-	CULTURAL E CIED CASH EXPANU T1 79	AGRICULTURAL ECONOMICS PROGRAM Projected Cash Flow Budget Rapid Expanu TIESTALL ADD. YR2 08-20-79	PROGRAM: Get DD. YR2							
*** CASH INFLOWS	*** S#0												
	NAU	FE8	MAR	APR	MAY	NUL	JUL	AUG	SEP	0CT	NON	DEC	TOTAL
BEG CASH BAL LVSTK MILK TOTAL INFLOW	16550. 15700. 32250.	24879. 14672. 39551.	24760. 13002. 37762.	28382. 12382. 40764.	28814 <b>.</b> 12451. 41265.	27069. 12763. 39832.	31964. 12447. 44411.	36542. 11764. 48306.	40438. 9355. 49793.	41906. 7714. 49520.	40177. 19884. 51061.	26689. 14634. 43323.	16550. 147758. 164318.
*** CASH OUTFLOWS	+++ SM01.												
HIRED LABOR	400	<b>006</b>	.006	<b>900</b>	<b>900</b>	<b>•</b> 006	900	<b>•</b> 006	900	<b>•006</b>	-006	900	10800.
REPAIRS	204.	204	204.	404	408.	408.	408.		408.	408.	408-	204.	4076.
PURCH. FEEU SFFD	•1<	• / 0 4	407.	-104 -104	407.	401•	401.	401 •	407.	407.	401.	401.	4858.
FERTILIZER	00	• •	1031.	2784.	1031.	00	> o	0	00	123.	00	00	5568.
CHEMICALS	0 0	0 0	0	170.	2394.	0	0	0	0	0	0	0	2564.
KACH HIRE				<b>.</b>	0	0 0	0 0	<u>ہ</u> د	с с	00	1104.	0 0	1194.
HHEEDING	236.	233.	233.	233.	233.	, 30.	230.	230.	233.	233.	233.	233.	2193.
VET. A MED.	202.	200.	200.	200.	200.	197.	197.	197.	200.	200.	200.	200.	2344.
LSK SUPPLIES	236.	233.	233.	234.	233.	230.	230.	230.	233.	<b>-533</b>	233.	233.	2143.
EVSIK. MKIG. 645.011 -087	• 40.5 • 1 6 6	-004 331	-00 <del>4</del>	-004	400.	395 <b>.</b>	395. 661.	395.	400.	400.	400. 000	400.	4788.
FAMM TAXES	0	0	• •	0	834.	• • • •	• • • • •	• • •	• 700	834.	• • • • • •	• 1	1668.
FARM INSUR.	0	2589 <b>.</b>		0	0	•	0		0	0	0	0	-6HCC
UTLITES	1050	1046.	1950	368. 1251	368.	J68.	1050.	368. 1250	368.		366.	363	- 0144 - 0144
INC A SS TAX	0	4850.	0	• AC 21	0	•nc31	0	0	v	•nc 71	• AC21	• AC7 1	4950.
MIN END BAL	500.	500.	500.	500.	500.	500. 5660	500. EE, 2	500.	500.	-005	500.	500.	500.
•			1		110011	• 2+00	• > + CC	• 2 + 6 6	• Ласс	•/11/	• 0 • 0 •	•0205	* 3265 k
SURP. OR DEF	27206.	27087.	<b>3070A.</b>	31141.	\$9396.	34290.	38869.	42765.	44233.	42504.	42016.	<b>3</b> 8298.	.19E09
••• CAPITAL P	PURCHASES	•											
MACH. PURCM. TOT. CAP PUR	60	00	00	00		• •	00	00	00	00	11000. 11000.	00	11000.
SURP. OR DEF	27206.	27087.	30708.	31141.	29396.	34290.	38869.	42765.	44233.	42504.	31016.	38298.	. [4693
*** DEBT РАУМ	PAYMENTS ***												
FLB PAYMENT Buk NRE PYMT Tot debt pay	1279. 1547. 2827.	1279. 1547. 2827.	1279. 1547. 2827-	1279. 1547. 2827.	1279 <b>.</b> 1547. 2827.	1279. 1547. 2827.	1279. 1547. 2827.	1279. 1547. 2827.	1279. 1547. 2827.	1279. 1547. 2827.	1279. 1547. 2827.	1279. 1547. 2827.	15352. 18568. 33920.
SURP. OR DEF	24379.	24260.	27882.	28314.	26569.	31464.	36042.	39938.	41406.	39677.	28189.	35471.	35471.
ACC. AO INT. AO PRIN. PAY	00	<b>0</b> ¢	••	••	00	00	00	<u>,</u> 0 0	00	0 <b>0</b>	00	00	
*** AO LOAN BALANCES		•											
НЕБ° АО ВАL 110 АО ВАL 111 САЗН НАL	0 0 24474.	0 0 24764.	0 28382	0 2881++	0 27069.	0 0 31964.	0 0 36542.	•8E <b>40</b> 4	0 0 41906.	0 0 0	0 0 28689 •	•1265t	• 1792E

COMPULEN DECISION AIDS EXTENSION FARM MANAGEMENT AGRI. EXTENSION SERVICE UNIVERSITY OF MINNESOTA	ISION AID M MANAGEM DN SERVIC MINNESOT	E E A	AGRIC PROJEC RAPID 08-21-	CULTURAL E TED CASH EXPANU TI 79	AGRICULIURAL ECONOMICS PROGRAM Rojected Cash Flow Budget Apid Expanu Tie Stall Add. Yr3 8-21-79	PROGRAM: Et DD. Yr3							
CASH INFLOWS	+++ SMO												
	NAL	FEB	MAR	АРК	MAY	NN	JUL	AUG	SEP	0CT	NON	DEC	TOTAL
HEG CASH BAL LVSTK MILK Total Inflow	35971. 21408. 57379.	50027. 15100. 65127.	42736. 15006. 57742.	48361. 14103. 62464.	50514. 13383. 63897.	49701. 12167. 61868.	53982. 12380. 66362.	58475. 13022. 71497.	63610. 12359. 75969.	68082. 10472. 72554.	67182. 8844. 76026.	53655. 7958. 01613.	35971. 156202. 192173.
*** CASH OUTFLOWS	.045 ***												
HIRED LABOR Depatos	- 006 - 007	- 006 - 704	- 000- 204-	-009	-006	408.	900.	900- 408-	900. 408.	400.	900- 408-	900-	10600. 4076.
PURCH. FEED	407.	407.	10	407.	407	407.	407.	407.	407.	+0.7.	407.	407.	4878.
PURCH. CORN	0	0		0	0	0	0	0 0	0	1929.	0 0	3	1929.
SEED FERTILIZER	00	00	1031.	1434.2784.		00	00	• •	00	0 723.	0	90	5554 5554
CHEMICALS		0	0		2394.	0	• •	0	0	)	0	0	2264.
CHOP INSUR.	0	•	0	0	•• 0	0	0	0	0	0	1104.	0	1104.
MACH. HIRE	٥ زر	0	6	0,	2051.	0	0,555	0		0	2051.	0 272	4101. 2700
BREEUING	• • • • • • • • • • • • • • • • • • •		•555	533.	200°			633. 200	• • • • • • •		200		2 2 C
LSK SUPPLIES	233.	233.	233.	233. 233.	233.	233.	233.	233.	233.	. E C S	233.	233.	2199.
LVSTK. MKTG.	400.	400.	400*	400-	400.	400.	400.	400.	400*	400.	400.	400-	4735.
GAS.OIL.URY	331.	331.	.156	331.	661. 936	661.	661.	661.	651.	561. 436	.266	331 <b>.</b>	6612.
FARM TASUR		2584.			• + 00		00	0	. c	•			• 5 2 3 4 • 5 2 3 4
UTILITES	368.	368.	68	368.	368.	368.	368.	368.	368.	368.	356.	364.	4420.
FAM. LIVING	1250.	1250.	1250.	1250.	1250.	1250.	1250.	1250.	1250.	1250.	1250.	1250.	15000.
	500.	- 2005 - 2005	2	500.	500.	500-	500.	500.	500.	, 00 r	500.	500.	500-
TOT. OUTFLOW	5026.	20065.	7054.	9623.	11869.	5560.	5560.	5560.	0	9045.	9045.	5026.	93493.
SURP. OR DEF	52353.	45062.	50688.	52841.	52028.	56308.	60802.	•2633	70409.	<b>•</b> 60569	66981.	56587.	98680.
••• CAPITAL PI	PURCHASES	9 10											
44СН. РURCH. 101. сар Pur	0 0 0	00	00	00	00	00	00	• •	00	00	11000.	00	11000.
SURP. OR DEF	52353.	45062.	50688.	52841.	52028.	56308.	60802.	65937.	70409.	<b>69509</b>	55981.	56587.	87680.
*** DEBT PAYM	PAYMENTS ***												
FLB PAYMENT UNK NRE PYMT Tot debt pay	1279. 1547. 2827.	1279. 1547. 2827.	1279. 1547. 2827.	1279. 1547. 2827.	1279. 1547. 2827.	1279. 1547. 2827.	1279. 1547. 2827.	1279. 1547. 2827.	1279. 1547. 2827.	1279. 1547. 2827.	1279. 1547. 2827.	1279. 1547. 2827.	15352. 1856ê. 33920.
SURP. OR DEF	49527.	42236.	47861.	50014.	49201.	53482.	57975.	63110.	67582.	66682.	53155.	53760.	53760.
ACC. AO INT. AO PRIN. PAY	ວວ່	• •	00	00	00	••	ėo	00	00	00	00	00	00
*** AD LUAN BALANCE	S	1											
	00	0	0 <b>c</b>		<u></u> e c	06	0 0	9 3	00	00	00	00	5 C
END CASH BAL	50027.	42736.	48361.	50514.	49701.	53982.	58475.	63610.	680HZ.	67142.	53655	.09244	54256

. ....

	TOTAL	54269. 169155. 223415.	1		10400.	4878. 5756	01010	5063	1104.	+101. - 106	2449.	- 6612	4198.	1060.	2584	15000.	17450.		120587.		11600.	109587.		15352. 18568. 33920.	75667.	60		00	76167.
	DEC	74309. 9211. 83520.			900. 204.	07	00	сı с	00	2	000	33	400°	1	3	308. 1250.		5026.	78494.		00	78494.		1279. 1547. 2827.	75667.	00			16167.
	NON	85839. 10841. 96680.			408.	407.	00	00	- *0	2051.	20	233.	00	• • • •	0,374	1250.	6	9045.	87635.		11000.	76635.		1279. 1547. 2827.	73809.	00			74309.
	OCT	84552. 12830. 97432.		6	0.00	407.		,23 <b>.</b>	00	0	200.	233.	400. 66).	к34.	0 0 7 0	1250.	0 001	-000- 9316-	88166.		00	88166.		1279. 1547. 2827.	85339.	00		1	<b>35639</b> •
	SEP	81399. 13339. 94738.			408.	407. 2199.		00	, c	~	10	33	400. 661.	\$	0	1250.		7759.	86978.		00	86978.		1279. 1547. 2827.	84152.	00			84652.
	AUG	78006. 12645. 90651.			<b>D O</b>	407.		c 0	0	<b>ر ر</b>	10	m e	400.	)	a	1250.	0	o c	83725.		0	83725.		1279. 1547. 2827.	80899.	<b>0</b> 0			8139¢•
	JUL	73491. 12402. 85893.		c	408.	~	0	00	0	÷	200.	50	401. 661.	; -	_ a	1250.	000Y		80333.		00	80333.		1279. 1547. 2827.	77506.	00			18006.
PROGRAM: Get ADD. YR4	NUL	68604. 12773. 81377.		000	0.80	20	0	00	0	33	200.	K33.	+00. 661.	C	ં વ	1250.	0 004	5560.	75817.		00	75817.		1279. 1547. 2827.	12991.	00		ć	• 16467
AGRICULTURAL ECONOMICS PROGRAM: PROJECTED CASH FLOW BUDGET Rapid Expand Tie Stall Add. Yr4 08-21-79	МАҮ	69287. 13513. 82800.		C	280	20		1031. 2394.		233.	20	2	400. 661.	7	0 36.8	1250.	500.	11869.	.16907		00	.16907		1279. 1547. 2827.	68104.	<b>.</b> .			08004
CULTURAL CTED CASH EXPAND T -79	АРК	63650. 17587. 81237.	·	900	80	•/04	1439.	2784.	0	л Г	200.	233.	2 1		я У	1250.	500.	9623.	71614.		00	71614.		1279. 1547. 2827.	68787.	00			• 18260
AGR1 PROJE RAPID 08-21	AAM	52934. 20097. 73031.		900		0. *	99 <sup>д</sup> .	1031	0	233.	200-	633. 400	331.	0	0 36.8.	1250.	0 500.	7054.	65977.		• •	65977.		1279. 1547. 2827.	63150.	00		0	• 35050
DS Ment Ta	FEB	61097. 19728. 80825.		900	504	• • • •	0		0	233.	200.	<ul><li>243.</li></ul>	331.	0	368.	1250	.002 .002	25565.	55260.	•	00	55260.		1279. 1547. 2827.	52434.	00	•	0	• # n f \ / n
<pre>     Control and     Farm manage     Farm manage     Ension Servi     of minneso     Inflows *** </pre>	NAU	54260. 14189. 68449.	*** SM07,	-006	204	• • • • •	0	00	0	233.	200-		331		368.	1250.	500.	5026.	63423.	PURCHASES	00	63423.	PAYMENTS ***	1279. 1547. 2827.	60597.	00	BALANCES +	0	
COMPUTER DECISION AIDS EXTENSION FARM MANAGEMENT AGRI. EXTENSION SERVICE UNIVERSITY OF MINNESOTA CASH INFLOWS		BEG CASH BAL LVSTK MILK TOTAL INFLOW	+++ CASH OUTFLOWS	HIRED LABOR	REPAIRS	PURCH. CORN	SEED	CHEMICALS	CROP INSUR.	HAEEDING	• 03M ×	LSK SUPPLIES I VSTK - WKTG.	GAS-01L-DRY	FARM TAXES	UTILITIES		MIN END BAL	001	SURP. OR DEF	••• CAPITAL P	MACH. PURCH. TOT. CAP PUR	SURP. OR DEF	•*• DEBT PAYM	FLB PAYMENT BNK NRE PYMT TOT DEBT PAY	SURP. UR BEF	ACC. AU INT. AO PRIN. PAY	••• AO LOAN B	HEG AO BAL End Ao Hal End Cach Hai	

		101 L	76161- 167783. 243450.		-0060	4078.	4879.	5164.	· · · · ·	2564.	1104.	4101.	2749.	.2349.	2749.	4130.	6512.	1008.	- 500V	5000.	22756.	506.	01524.	36322.		11000.	25322.		15352. 18568. 77920.		9140Z.	• •		00	•20616
		DEC	88191. 76 11064. 16 99255. 24		-	204	•			00				200.					~		0	500.	5026. 10	94229. 13	i.	00	94229. 12		1279. 1		91402.	20		5	
		D NON	97570. 88 12992. 11 10562. 99		000	408.	407.	0 (	50	00	4	2051.	233.	200.	233.	400.	.266	00	. 4 76	1250.	0	500.		517.		11000.	9-517. 9		1279. 1547. 2827.		8769I.	00		0 3	4191.
		0CT N	5791. 97 3422. 12 9213. 110		000	408-	407.	2199.	0	n u	0			200.	233.	+00+	661.	е <b>34.</b>	0 34 5	1250.	0	-005	16.	99897. 101		00	99897.9		1279. 1547. 2427.		97070. 8	00		00	0 97570- 8
		SEP	93209. 9 12668. 1 05877. 10		000		407.	•66	00	00		. 0	233.	200.	233.	400.	661.	0 0	0,000	-005	0	500.	175 <b>9</b> °	98117. 9		00	98117。		1279. 1547. 2827	- 1 207	95291.	00		00	
		AUG	9966. 2495. 2461. ]		000	•00•	407.	1365.	0		. 0	0	233.	200.	233.	400.	661.	0	0	1250.	2	500.	6926.	95535•		00	95535°		1279. 1547.	• 1 20 7	•60756	00		0 0	0 • 602E6
		JUL	84333. 8 13520. 1 97853. 10			408-	407.	0	0		0 0	. 0	8	200.	233.	400.	61	0 0	_ c	1250.	-	500.	5560.	92293.		60	92293.		1279. 1547.	.1707	89466.	© O		00	0 89966.
OGRAM:		NUL	78767. 8 13452. 1 92219. 9		000	-00-	407.	0	0	5 c	• c		233.	200.	233.	400.	661.	0	0	1950.		-00¢	60	86659.		00	86659.		1279. 1547.	• 1 202	83833.	00		0	0 .6££48
DNOMICS PF OW BUDGE1 DD. YR5		MAY	76289. 16674. 92963.			-004	•0.4.	0	0,20,	.1601		2051	233.	200-	233.	400.	661.	834.	0	308. 1260	• • • • • •	500.	11869.	81094.		00	81094.		1279.	• 1 282	78267.	00		0	0 78767.
AGRICULTURAL ECONOMICS PROGRAM. Projected Casy flow budget Rapid Expanu isadd. yrs 08-21-79		APR	69138. 19101. 88239.			-004	407.	0	1439.	2184.	•	• c	233.	200-	233	400.	331.	0	0	1000.	••••••	500.	9623.	78610.		00	78616.		1279.	971	75789.	00		0	0 76284.
AGRICUI PROJECTI RAPID ET 08-21-7		MAR	59211. 19308. 78519.			-006	404.		68	1031.				200-	233.	400.	.166	0	0	J68.	•0C71	500.	7054	71465.		00	71465.		1279.	~	68638.	00		0	8 69136.
2 1		FEB	77888. 14014. 91902.			-006	401	0	0	00	<b>,</b>		277.	200-	233.	400	331.	0	2589.	368.	.0575C	- C U U -	30365.	61537.	:	00	61537.		I279. 1547.	2821.	58711.	00		0	0 59211.
SION AIDS Manageme N Service Minnesota	#2 0##	NAU	76167. 9073. 85240.	*** SMO	•	-006	407	0	0	00						400.	331.	0	0	368.	•0<21	500	5020.	80214.	ŝ	00	80214.	ENTS ***	1279.	2827.	77388.	00	S	0	0 77885.
COMPUTER DECISION AIDS EXTENSION FARM MANAGEMENT AGAL, EXTENSION SERVICE UNIVERSITY OF MINNESOTA	CASH INFLOWS		BEG CASH BAL LVSTK MILK TOTAL INFLOW	4 CASH OUTFLOWS ***		HIRED LABOR	REFAIRS PURCH. FFFD	PURCH. CORN	SEED	FERTILIZER	0	CKUP INSUK.	PACT. NINC	WEEUING	L SA SUPPI IFS	LOU DO LEE	GAS-OIL-DRY	FANN TAXES	FAKM INSUR.	UTILITES	FAM. LIVING		۰.	SURP. OR DEF	*** CAPITAL PURCHASE	MACH. PUNCH. TOI. CAP PUR	SUMP. OR DEF	*** DEBT PAYMENTS	FLB PAYMENT BNK NHE PYMT	TOT DEBT PAY	SURP. OR DEF	ACC. AO INT. Ao Prin. Pay	*** AO LOAN BALANCE	HEG AO HAL	

	JUL AUG SEP OCT NOV DEC TOTAL	7359• 10913• 682• 540• 2743• 3 0 0 0 0 0	0 0 0 0 7083. 7015. 12627. 16927 17996. 7697. 13167. 19670		<b>36. 136. 136. 136. 136.</b> 0	1524 1524 1524 1524 1524 764 15194 2184 2184 2244 3254 4224 4174 39794			0 0 0 1233. 0 125. 128. 187. 242. 239.	107. 110. 160. 207. 205. 195. 198 187 262.			0 0 0 0 0 0 0 0 0 78- 178- 178- 178-	1000. 1000. 1000. 1000. 1 	500. 500. 500. 500. 500. 3013. 3032. 4440. 6232. 3391. 4	7985. 11539. 14964. 3257. 6935. 16278. 49001.		0 0 0 25500. 19000. 0 44509. 0 0 0 0 0 11000. 0 11000. 0 207309. 0 0 277309. 0 207309. 25500. 30000. 0 252809.	7985. 115391423452224323065. 16278214608.		0 0 195309. 0 0 195309. 0 0 195309. 0 0 0 25500. 29000. 0 54500. 0 195309. 25500. 29000. 0 249809.		490. 490. 2145. 2145. 2145. 2145. 12501. 636. 636. 635. 1073. 1547. 1547. 9844. 1127. 1127. 2782. 3218. 3692. 3692. 22395.	6859. 10413. 182. 40. 2243. 12587. 12606.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0
		82 <b>.</b> 54 0	0 015. 1 697. 1		13	40	0 600.						17	000. 100	500. 50 440. 623	257. 693		25500. 1 25500. 2 25500. 3	222432306		6 5500. 290 5500. 290		145. 073. 218.	0. 224	• •		
	SEP	10913	7083 17996		136	152 224			128		220	000	178	1000	500 3032	4964		207	-19234		195309 195309		. 2145 . 636 . 2782	30			0
	AUG	• 7359	0 • 7194 • 14553		• 136	• 152 • 218			125	107	215	902	0 • 178	• 1000	. 500 . 3013	. 1153			• 11539				. 490 . 636 . 1127	. 1041			0
	ากก	0. 376 0	0 72 9. 109		. 13	21	00	00	~			• •	0 • 17	. 100	301	98		0000	9.9		\$ C 0		4.0[]	. 685	1 <b>.</b> 59.		59.
MICS PROGR BUDGET ESTALL YHI	NUL Y	50	0 1940 - 7040 1940 - 7540		-	152. 152 213. 213	0 16.	.592. 0			210. 210.			000 1000	500- 500 377- 2995	3. 455		0000	63. 455		000		490. 490. 636. 636. 1127.	37. 3427	5 <b>.</b> 32. 1		91. 1
AGRICULTURAL ECONOMICS PROGRAM PROJECTED CASH FLOW BUDGET Rapid Expand New TIESTALL YHI 08-20-79	АРК МАҮ	N	2025. 5827. 69 8352. 99			152. 1 208. 2	-	N)	0 I		205. 2	.0	0 78.	I	80	224. 156		0000	224. 15		000		490. 4 636. 6 127. 11	91. 4	6. 91. 4		682. 5
AGRÍCULTI PROJECTED Rapid Exp. 08-20-79	MAR AS		0 21 5677. 51 6177. 8.			76. 208.			0 0	-20		• 87	о 7н.	м	1	1345. 10		0000	1345. 1		000		490. 636. 1127. 1	218.	7. 211.		893.
N		15031. 2500.	0 5080. 22611.		0		• •	<b></b>	0021	102.	205.	0	1012.	1000.	500. 2377.	234.	*	0000	234.		000		490. 636. 1127.	-893.	00		0
ISION AIDS A MANAGEMEI DN SERVICE MINNESOTA DWS +++	AN		0 5245. 18276.	*** S#0-	0	76. 203 <u>.</u>	• •	00	0 0 0	100	200.	0	78			15658.	PURCHASES *	0000	15658.	*** _	000	Ass SIN	490. 636. 1127.	14531.	00	BALANCES **	c
COMPUTER DECISION AIDS EXTENSION FARM MANAGEMENT AGRI. EXTENSION SERVICE UNIVERSITY OF MINNESOTA *** CASH INFLOWS ***		BEG CASH BAL Corn	HAY LVSTK MILK TOTAL INFLOW	*** CASH OUTFLOWS	HIRED LABOR	PEPAIRS Purch, feed	SEED FERTILIZER	CHEMICALS CROP INSUR.	MACH. HIRE Laffning	VET. A WED.	LVSTK. MKTG.	GASIJLIUKT	FAMM INSUR. UTLITIES	FAM. LIVING	ENC.	SURP. OR DEF	*** CAPITAL PU	84. LVSK PUR MACH. PUKCH. ELDG. PUKCH. 101. CAP PUR	SURP. OR DEF	*** NE* CREDII	FLÉ LOAN Bhr Mre Loan Tùt new Cred	*** DEBT PAYMENT	FLB PAYMENT Han NRE Pymi Tot deut Pay	SURP. UR DEF	ACC. AO INT. Au prin. Pay	*** AO LOAN BA	HEG AD RAI

COMPUTEN DECISION AIDS Extension farm management agri. Extension service University of minnesota	ISION AID MANAGEM N SERVIC MINNESOT	ENT A	AGRIC PROJEC RAPID 6 08-20-	GRICULTURAL ECONOMICS PROGRAM: COJECTED CASH FLOW BUDGET PID EXPAND NEW TIESTALL YR2 =20-79	CONOMICS F LOW BUDGE V TIESTALL	PROGRAM: ET - YR2							
*** CASH INFLOWS ***	*** SM(												
	NAU	F£8	MAR	APR	МАҮ	NUC	JUL	AUG	sЕР	0CT	NON	DEC	TOTAL
HEG CASH BAL LVSTK HILK TOTAL INFLOW	13087. 15700. 28787.	20427 <b>.</b> 14672. 35099.	18586. 13002. 31588.	21234. 12382. 33616.	20578. 12451. 33029.	17363. 12763. 30126.	21146. 12447. 33593.	24612. 11764. 36376.	27396. 9355. 36751.	27752. 7714. 35466.	24528. 10884. 35412.	11934. 14634. 26568.	13087. 147768. 160855.
*** CASH OUTFLOWS	-045 ***												
			-				0000		000	0000	000		
HIRED LABOR	900. 377.	900°	3274	900. 654.	900. 554.	900. 654.	900. 654.	900. 654.	900. 654.	900. 654.	900. 654.	327.	10400. 6540.
PURCH. FEED	412.	407	407.	407.	407.	401.	401.	401.	407.	407.	407.	407.	4158.
SEED	•	0	990.	1436.	0	00	00		00	0	<b>&gt;</b> <		- 72+2 - 72+2
CHEMICALS	• •	00	•6201	170.	2376.	00	0	0	00	0	0	0	2546.
CHUP INSUR.	0	0	0	0	0	0	0	0	0	0	1098.	0 0	1096.
MACH. HIRE	0	0 201	0	0	2051.	ĉ	0.00	0	0	0	2051.	0	.1014
HWEEDING	236.	233. 200	233.	- 533. - 000	233.	197.	197.	197		-006	200.	200.	0344°
ISK SUPPLIES	236-	233.	233.	233.	233.	230	230.	230.	233.	233.	233.	233.	2143.
LVSIK. MATG.	401	+00	400	400	400	395.	395.	395.	400.	•00+	400.	400.	4768.
GAS.OIL.ORY	331.	331.	331.	331.	661.	661.	661.	661.	661.	661.	•266	331.	6512. 2:35
FAUM TAXES	о с	0	00	00	1217.	00	00		00	./1/1	00	00	4122.
UTLETTES	368.	368.	368.	364.	368.	368.	368.	368.	368.	368.	364.	368.	4420-
FAM. LIVING	1250.	1250.	1250.	1250.	1250.	1250.	1250.	1250.	1250.	1250.	1250.	1250.	15000.
INC A SS TAX	0	4020.	003	005	0		0 2004	5005	5005	2005 2005	510.	500.	500 ·
TUT. OUTFLOW	5167.	13321	7162.	9846.	12473.	5788.	5788.	5788.	5806.	7746.	9285.	5149.	87±19.
SURP. OR DEF	23620.	21779.	24427.	23770.	20555.	24338-	27805.	30589.	30945.	27720.	26126.	21419.	73034.
••• CAPITAL P	PURCHASES	• •											•
MACH. PURCH.	0	0	0	0	0	0	0	0	0	0	11000.	0	11000.
ICT. CAP PUR	0	0	C	0	0	0	0	5	0	0	11000.	0	11000
SURP. OR DEF	23620.	21779.	24427.	23770.	20555.	24338.	27805.	30589.	30945.	27720.	15126.	21419.	62036.
••• DEBI PAYM	PAYMENTS ***												
FLU PAYMENT BNK NAE PYMT Tot dent pay	2145. 1547. 3492.	2145. 1547. 3692.	2145. 1547. 3692.	2145. 1547. 3692.	2145. 1547. 3692.	2145. 1547. 3692.	2145. 1547. 3692.	2145. 1547. 3692.	2145. 1547. 3692.	2145. 1547. 3692.	2145. 1547. 3692.	2145. 1547. 3692.	25741. 18568. 44309.
P. 08	19927.	18086.	20734.	20078.	16863.	20646.	24112.	26896.	27252.	24028.	11434.	17727.	17727.
	6	G		e	c	0	0	0	0	o	0	0	0
ACC. AC IN . AO PRIN. PAY	0	<b>,</b>	0	9 0	. 0	0	0	0	0	0	0	0	Ð
*** AO LOAN BALANCE	S	:											
	00	0	00	00	о с	00	90	00	00	00	00	00	00
140 80 84 110 CASH HAL	29427.	0 18586.	21234.	20578.	17363.	21146.	24612.	27396.	21752.	24528.	11934	18227.	18227.

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COMPUTER DECISION AIDS EXTENSION FARM MANAGEMENT AGRI. EXTENSION SERVICE UNIVERSITY OF MINNESOTA	ESION AID A MANAGEM DN SERVIC MINNESOT	A E NT	AGRIC PROJEC RAPID 08-21-	ULTURAL E TED CASH EXPAND NE 79	AGRICULTURAL ECONOMICS PROGRAM Projected Casy flow Budget Rapid Expand New Tsyr4 08-21-79	PROGRAM: ET							
*** CASH INFLOWS	*** S#(												
	NAL	FEB	MAR	APR	MAY	NUL	JUL	AUG	SEP	0CT	NON	DEC	TOTAL
BEG CASH BAL LVSTK NILK 10TAL INFLOW	30915. 14189. 45104.	36763. 19728. 56491.	39678. 20097. 59775.	49405. 17587. 66992.	53931. 13513. 67444.	51752. 12773. 64525.	55527. 12402. 67929.	58930. 12645. 71575.	61211. 13339. 74550.	63352. 12830. 76182.	63044. 10841. 73885.	50401. 9211. 59612.	30915. 169155. 200070.
*** CASH OUTFLOWS	••• S40												
		000				000	6		ć	003			
HIRED LABOR	.006	•006	25	•006	-006	400°	20	-006	-004	400. 454	-004	.006	- 0000 -
REPAIRS PURCH, FFFD	-201-	407	407	401.	404	401.	404	404	407	407.	407	407	4878.
PURCH. CORN	0	0	0	0	0	0	0	1365.	66	2199.	0	0	5764.
SEED	•	0	998°	1439.	0	0	0	0	0		0	0	2437.
FERTILIZER	•	00	1031.	2784.	1031.	00	00	00	00	.521	00	90	5558. 2566
CHEMICALS	<b>.</b>	<b>.</b>		110.	すたり	5 9		5		<b>.</b>			• 107 •
CROP INSUR.	0	<b>.</b>	•		0.100	0		> <	-		11040		•••••
MACH. HINE	0,55	0	ć	0,000	•1<0>						•1007		• 1 0 1 •
BPEEDING			38		503.	••••					-000	-000	- 1995 0
VET. A MEU.						233.	233.		- CEC		- EE		997 997
LSN SULFILS IVSTK, MKTG.	-004	400	28	400	400	400	20	+00+	400.	400	400.	400.	4 198.
GAS-01L-DRY	331.	331.	331.	331.	661.	661.	51	661.	661.	<b>661.</b>	932.	331.	6512.
FANN TAXES	0	0		0	1217.	0	0	0 (	0	1217.	0	0	2435.
FARM INSUR.	0	4122.	0	0	0	0	0	0	0	0	0,0		
UTILITES	368.	368.	ო (	368.	368	.368. 	368.	368.	368.	.168.	1 200 C	368.	4400
FAM. LIVING INC A SS TAX	• NC21	4350	•0C71	•nc>1	0 • nc 7 f	• n c y t	• AC 4 1		• • • • • •	• • • • • • • •	0	• • • • • •	4350.
MIN END BAL	500.	500.	500.	500.	500.	500°	500.	500.	500.	-004	500.	500.	-00c
TOT. OUTFLOW	5149.	13621.	17	9869.	12499.	5806.	5806.	7172.	<u>ں</u>		16	5149.	•054E6
SURP. UR DEF	39955.	42870.	52598.	57123.	54945.	58719.	62122.	64403.	66544.	66237.	64594.	54464.	106080.
•** CAPITAL PURCHASE	URCHASES	*											
	4	G	4	d	ć	c	c	c	a	c	11000	c	0001
MACH. PUKCH. 101. CAP PUR	<b>.</b>	00	50	• •	00	00		00	00		-00011	0	11000
SURP. OR DEF	39955.	42870.	52598.	57123.	54945.	58719.	62122.	64403.	66544	66237.	53594.	54464.	95030.
WYAY 1830 ***	PAYVENTS ***												
	27.6	2145	2145	2145	2145	2145.	21452	21452	2145	2145.	21452	2145-	25741.
LEB PATHENI BNK NRE PYMT 101 DEBT PAY	1547. 3692.	1547. 3692.	1547. 3692.	1547. 3692	1547. 3692.	1547 3692	1547. 3692.	1547	1547. 3692.	1547. 3692.	1547. 3692.	1547. 3692.	18568.
SURP. OR DEF	36263.	39178.	48905	53431.	51252.	55027.	58430.	60711.	62852.	62544.	.10994	50771.	50771.
	ć	a	c	c	c	c	c	c	c	c	Ċ	c	C
ACC. AU INI. Au Prin. Pay	\$ 0	00	9 0		5 0	00	00		00	00	0	00	ò
••• AO LOAN BALANCE	S												
A0	0	0	6	0	Ð	0	0	00	•	00	00	00	00
	0 36763.	0 39678.	-20464 05405	0 •1£9£2	0 51752.	0 55527.	0 58930.	0 61211.	0 •3352.	0 63044 <b>.</b>	50401.	.17512	51271.

COMPUTER DECISION AIDS AGRIC EXTENSION FARM MANAGEMENT PROJEC AGRI. EXTENSION SERVICE RAPID UNIVERSITY OF MINNESOTA 08-21- *** CASH INFLOWS ***	AGRICULTURAL ECONOMICS PROGRAM: Projected cash flow budget Rapid expanu new tiestall yks	19	
AIDS AGEMENT ALICE ESOTA	AGRICULTUF PROJECTED C RAPID EXPAN	08-21-79	
	AIDS AGEMENT RVICE	SOTA	•

TOTAL	51271. 167783. 219054.		10000.	45	4876.	5764.	2437.	5000.	<ul> <li>1004</li> <li>1004</li> </ul>	4101.	2799.	2399.	2799.	4794.	6612.	1t.uu.	4100	4400.	-00055	500	95145	123914.		11000.	112914.		25741. 18568. 44309.	68605.	00		0	0 69105.	
DEC	66382. 11064. 77446.		-00e	27	407.	0	0	50	50	00	33	200-	ŝ	00	331.	5:	0 9 7 6	-000-1 1-150	• nc 21	500.	6 4	12298.		0 <b>0</b>	12298.		2145. 1547. 3692.	68605.	<b>Ф О</b>		0	0 69105.	
NON	76874. 12992. 89866.		<b>900</b>	654.	407.	0	0	<b>.</b>		2051.	ന	200-	233.	+00-	N	<b>&gt;</b>	2,10	-040 010	•0C7T	00		80575.		11000.	69575.		2145. 1547. 3692.	65882.	00		0	0 663A2.	
0CT	76590. 13422. 90012.		-00 <del>6</del>	654.	407.	2199.		123.		• •	233.	200.	233.	400.	661.	./171	0 0 7 6	-000-	• • • • • • •	, , , , , ,	9945.	80067.		00	80067.		2145. 1547. 3692.	76374.	00		0	0 76874.	
SEP	75120. 12668. 87788.		900	654	407.	2199.	0	0 0	5 0	00	233.	200.	233.	400	661.	0	c	1000.	• > = > = = = = = = = = = = = = = = = =	500.	0.50	79782.		00	79782.		2145. 1547. 3692.	76090.	00		0	0 76590.	
AUG	72989. 12495. 85484.		<b>•</b> 006	654.	407.	1365.	0	0 0		00	233.	200.	233.	+00	661.	<b>ə</b> c		•000 •000	0 0 0 0 7	C	7172.	78312.		00	78312.		2145. 1547. 3692.	74620.	00		0	75120.	
JUL	68468. 13520. 81988.		.006	654.	407.	0	0	0 0	2	00	33	200.	33	400	661.	0	0,00	•000 ·	•0001	, 200 č	00	76181.		00	76181.		2145. 1547. 3692.	72489.	00		0	0 72989.	
NUL	64014. 13452. 77466.		-004	654 ·	407.	0				0	233.	200.	233.	+00	661 <b>.</b>	00	0 26	.000.	•00.9T	, 200 c	e c	71660.		00	71660.		2145. 1547. 3692.	o7968.	00		0	0 68468.	
MAY	63032. 16674. 79706.		.006	3	407.	•	0	1031.	• + 4.6 0	2051.	6	200.	233.	+00+	661.	1211.	0,00	.000. 1050	• nc > 1	500.	12499.	67207.		00	67207.		2145. 1547. 3692.	63514.	00		0	0 64014.	
APR	56992. 19101. 76093.		<b>•</b> 006	654.	407.	0	1439.	2784.	• > 1		233.	200.	233.	400	331.	50	5 .	-000	• > c > 1	500.	5	66224.		00	66224 <b>.</b>		2145. 1547. 3692.	62532.	00		Ð	0 63032.	
MAR	48054. 19308. 67362.		900	327.	407.	0	998.	1031.		00	233.	200.	233.	400	331.	5	2,55	-000. 1000		500.	7177.	60185.		00	60185.		2145. 1547. 3692.	56492.	00		0	56992	
FE8	52003. 14014. 66017.		<b>006</b>	327.	407.	0	0	-	<b>.</b>		233.	200.	233.	400.	331.	0	4166.	, 200.	-00-51	500-	14771.	51246.	***	00	51246.		2145. 1547. 3692.	47554.	00	**	0	0 48054.	
NAU	51271. 9073. 60344.	*** S#0'l	<b>•006</b>	327.	407.	0	0	0 0	5 0	00	233.	200.	233.	*00*	331.	5		-000-1	• nc > 1	500.	5149.	55195.	URCHASES	00	• 28 I 82 •	PAYMENTS ***	2145. 1547. 3692.	51503.	00		0	0 •£003<	
	BEG CASH BAL LVSTK MILK TOTAL INFLOW	*** CASH DUTFLOWS	HIRED LABOR	REPAIRS	PURCH. FEED	PURCH. CORN	SEED	FERIILIZER	CHEMICALS COOD INCLO	MACH. HIRE	BREEDING	VET. A MED.	LSK SUPPLIES	LVSTK. MKTG.	GAS+OIL+DRY	FAWM FAXES			TAT A SS TAY	MIN FND HAL	TUT. OUTFLOW	SURP. OR DEF	••• CAPIIAL PURCHASES	MACH. PURCH. 101. CAP PUR	SURP. OR DEF	*** DEBT PAYN	FLB PAYMENT BNK NRE PYMT TOT DEBT PAY	SURP. OR DEF	ACC. AO INT. AO PRIN. PAY	*** AO LOAN BALANCES		END CASH BAL	

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OGRA	YRI	
S Pa	DGET TALI	
AGRICULTURAL ECONOMICS PROGRAM:	PROJECTED CASH FLOW BUDGET Rapid Expand New Frefestati	
CONC		
AL	ASH NF	
LTUR	ED C	
NI CUI	DECT	02-06 00
AGR	SAP1	0

COMPUTER DECISION AIDS	AGRICULTURAL E
EXTENSION FARM MANAGEMENT	PROJECTED CASH
AGRI. EXTENSION SERVICE	RAPID EXPAND NE
UNIVERSITY OF MINNESOTA	62-20-24
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HILL ORDINE HOKI AND	

COMPUTER DECISION AIDS EXTENSION FARM MANAGEMENT AGRI. EXTENSION SERVICE UNIVERSITY OF MINNESOTA	ESION AID A MANAGES N SERVIC MINNESOT	IENT E A	AGRIC PROJEC RAPID 08-21-	AGRICULTURAL EC PROJECTED CASH F Rapid Expanu New 08-21-79	. ECONOMICS PROGRA 14 FLOW BUDGET NEW FREESTALL YR3	PROGRAM: ET LL YR3							
*** CASH INFLOWS	*** SM												
	JAN	FE8	MAR	APR	MAY	NUL	JUL	AUG	SEP	0CT	NON	DEC	TOTAL
BEG CASH BAL LVSTK NTLK TOTAL INFLOW	16794. 20723. 37517.	29497. 14951. 44448.	29935. 14405. 44340.	34292. 13572. 47864.	35144. 12879. 48023.	32824. 11671. 44495.	35868. 11814. 47682.	39055. 12446. 51501.	42874. 11715. 54589.	45963. 9896. 55859.	45218. 8334. 53552.	30470. 7623. 38093.	16794. 150029. 166823.
*** CASH OUTFLOWS	*** SMO-												
-	000	000	000	000	000	- C		2	000	0	<ul> <li>C</li> </ul>	<ul> <li></li> </ul>	10400
HINEU LABUN REPAIRS	306.	306.	306.	513.	900. 613.	613.	613.	613.	613.	25	613.	306.	6126.
PURCH. FEED	407.	407.	407.	407.	407.	~	~	01	407.	407.	~	~	4818. 134
PUHCH. CORN		00	000	かじつ		э с	<b>)</b> c	•	5 0	7			2437.
FERTILIZER	0	0	1031.	2784.	1031.	00	0	0	0	123.		0	5553.
CHEMICALS	0	0	0	20	394	0 0	50	0	0	0		0	2564.
CROP INSUR.	• •	• •		• •	0	0 0	00	00	<b>ə</b> c	50	2051.	• •	1104.
HEEDING	233.	233.	233.	33	233	33	m	33	33	33	233	33	- 6612
VET. A WED.	200.	200.	200.	200-	200.	200.	200.	200.	200.	200.	200.	00	2399.
LSK SUPPLIES	233.	233.	633. 400-	n O O O	233.	50	n c	n c	50	50	<ul> <li>400</li> </ul>	າ ເ	2 7 4 4 <b>.</b>
UAS+OIL+DRY	301.	301.	301.	301.	601.	010		20	010	601.	902.	301.	6012
FARM TAXES	0	0	00	0 0	1098.	0 0	0 0	00		36	0		2195.
FARM INSUK.	0 364,	368.	368-	368.	0 36.8 -	у З68-	69	36A.	4	0 368-	n	- n	5040. 4400.
	1250.	1250.	1250.	1250.	1250.	1250.	1250.	1250.	1250.	1250.	1250.	1250.	15000.
INC A SS TAX	0 0 0 3	2850.	500	500.	2		6	2	0	- r	- c	5005	1001 1001
TOT. OUTFLOW	.8002		7126.	9798.	12278.	5705.	5705.	5705.	5705.	7719.	9160.	5048.	R5137.
SURP. OR BEF	32419.	32857.	37214.	38066.	35746.	38790.	41977.	45796.	4885.	48140.	44392.	32945.	A]636.
*** CAPITAL PI	PURCHASES	• • *											
ACH.	0	0 0	00	00	00	00	00	00	00	00	11000.	00	11000
IUI - CAP FUR	5	5	2	>	5		5		>	5	5	•	2
SURP. UR DEF	32419.	32857.	37214.	38066.	35746.	38790.	41977.	45196.	48885.	48140.	33392.	32995.	70636.
•** DEBT PAYMENT	ENTS ***												
FLB PAYMENT BNK NRE PYMT TOT DEBT PAY	1875. 1547. 3422.	1875. 1547. 3422.	1875. 1547. 3422.	1875. 1547. 3422.	1875. 1547. 3422.	1875. 1547. 3422.	1875. 1547. 3422.	1875. 1547. 3422.	1875. 1547. 3422.	1875. 1547. 3422.	1875. 1547. 3422.	1875. 1547. 3422.	22495. 18568. 41063.
SURP. OR DEF	28997.	29435.	33792.	34644.	32324.	35368.	38555.	42374.	45463.	44718.	29970.	29573.	29573.
ACC. AO INT. AO PRIN. PAY	00	00	60	• •	00	00	00	<b>0</b> 0	00	00	00	00	••
••* 40 LOAN B	BALANCES	:											
dEG AO BAL	00	00	0 4	00	99	00	00	00	00	00	00	00	00
END CASH HAL	24447.	29435.	34292	35144.	32824	35868.	39055.	42874.	45963.	45218.	30470.	30073.	30073.

COMPUTER DECISION AIDS EXTENSION FARM MANAGEMENT AGRI. EXTENSION SERVICE UNIVERSITY OF MINNESOTA	MINNESON AI	DS MENT CE TA	AGRI PROJE( RAPID 08-21-	AGRICULTURAL ECONOMICS PROGRAM: Projected casm flow budget Rapid Expand New Freestall YR4 08-21-79	ECONOMICS FLOW BUDC W FREESTA	PROGRAM: GET ALL YR4							
*** CASH INFLOWS	*** SMO												
	NAL	FEB	MAR	APR	MAY	NUL	JUL	AUG	SEP	0C1	NON	DEC	TOTAL
BEG CASH BAL LVSTK MILK TOTAL INFLOW	30073. 13631. 43704.	35684. 18951. 54635.	38472. 19325. 57797.	47749. 16892. 64641.	51921. 12868. 64789.	49590. 12158. 61748.	53121. 11790. 64911.	56284. 12529. 68813.	59821. 12677. 72498.	61772. 12035. 73807.	61261. 10255. 71516.	48434. 8681. 57115.	30073. 161792. 191865.
*** CASH OUTFLOWS	LOWS ***												
HIRED LABOR	-006	.006	900	900	000	900	<i>c</i>	000	000	000	000		00000
REPAIRS PURCH. FFFD	306.	306.	306.	613.	613.	613.	613.	613	613	613		906.	6125.
PURCH. CORN	•	• •	• •	• •	• • • •	• •	-	407. 366.	2099.	2099.	•/0+ 0	• / 0 4 0	4310. 4564.
SEED FERTILIZER	00	00	998. 1031.	1439.2784.	0 1601	00	00	00	00	0	00	00	2431.
CHEMICALS	0	0	•	170.	2394.	• •	0	0	00	2	00	00	2554
CROP INSUR.	00	00	00	• •	0	0 0	00	00	0	0	1104.		1194.
BREEDING	233.	233.	6	233.	233.	<b>m</b>	33	~	0 233.	. 0	2051	0.550	4101.
VET. A WED.	200.	200-	200.	20U.	200.	200.	30	200.	200.	200.	200.	• • • • • • • • • • • • • • • • • • •	2349.
LSK SUPPLIES	233.	233.	233.	233.	233.	233.	233.	8	233.	233.	233.	233.	2794.
GAS+01L+DRY	-105	301.	3010	-105	400.	400.	400-	400.	400	400.	400.	400.	4745.
FARM TAXES	0	0	0	0	1098.	4	5	-	• 1 00	1098.	• 204	• 1 0 5 0	2145.
FARM INSUR.	0	3643.		0	0	0	0			0	0	0	3643.
FAM. I IVING	368.	Jog.	J68.	368. 1250.	368.	368.	368. 1250-	368.	368. 1240	368.	368.	368.	4420.
INC A SS TAX	0	4500.	0	0	• •	•	0	3	0	0	0	• • • • • • • • • • • • • • • • • • • •	4500
MIN END BAL Tot. Outflow	500. 5098.	500. 13241.	500. 7126.	500. 9798.	500. 12278.	500. 5705.	500. 5705.	500.	500. 7804.	500. 0620.	500.	500.	500°
			)					;	>	105	• • • • • •	• • • • • •	J -1
SURP. UR DEF	38606.	41394.	50671.	54843.	52512.	56043.	59206.	62743.	64694.	64183.	62356.	52017.	10058.
• * • CAPITAL P	PURCHASES	•											
MACH. PURCH. TOI. CAP PUR	00	00	00	00	00	00	00	00	00	00	11000.	00	11000.
SURP. UR DEF	38606.	41394.	50671.	54843.	52512.	56043.	59206.	62743.	64694.	64183.	51356.	52017.	<b>9</b> 9658.
*** DEBT РАҮМ	PAYMENTS ***												
FLB PAYMENT BNK NRE PYMT TOT DEBT PAY	1875. 1547. 3422.	1875. 1547. 3422.	1875. 1547. 3422.	1875. 1547. 3422.	1875. 1547. 3422.	1875 <b>.</b> 1547. 3422.	1875. 1547. 3422.	1875. 1547. 3422.	1875. 1547. 3422.	1875. 1547. 3422.	1875. 1547. 3422.	1875. 1547. 3422.	22495. 18568. 41063.
SURP. OR DEF	35184.	37972.	47249.	51421.	49090	52621.	55784.	59321.	61272.	60761.	47934.	48595	48595.
ACC. AO INT. AO PRIN. PAY	00	00	00	00	00	00	00	• •	00	00	00	00	00
*** AO LOAN BALANCE	S	:											
866 AO 8AL FND AO 8AL	00	00	00	60	00	00	00	00	00	00	90	90	00
	35684.	38472.	47749.	51921.	49590	53121.	56284.	59821.	61772.	61261.	• +E + + + +	*54044	49395.

COMPUTER DECÍSION AIDS Extension farm management agri. Extension service university of minnesota	ÍSION AID M MANAGEM NN SERVIC MINNESOT	S E	AGRIC PROJEC RAPID 08-21-	GRICULTURAL ECONOMICS PROGRAM OJECTED CASH FLOW BUDGET PID EXPANU NEW FREESTALL YR5 -21-79	CONOMICS F LOW BUDGE * FREESTAL	PROGRAM: ET _L YR5							
*** CASH INFLOWS	9#S 80#												
	NAL	FE8	MAR	APH	MAY	NUN	JUL	AUG	SEP	0CT	NON	DEC	TOTAL
BEG CASH BAL LVSTK MILK TOTAL INFLOW	49095. 8688. 57783.	49763. 13453. 63216.	46253. 18542. 64795.	54747. 18321. 73068.	60348. 15952. 76300.	61101. 12765. 73866.	65239. 12880. 78119.	69492. 11866. 81358.	72366. 12562. 84928.	74202. 12771. 86973.	74427. 12313. 86740.	63658. 10473. 74131.	49095. 162386. 204681.
*** CASH OUTFLOWS **	*** SMO												
		4 -							( (			6	
HIRED LABOR Repairs Purch, ffed	900. 306. 407.	900. 306.	900. 306. 407.	900. 613. 407.	900. 613. 407.	900. 613.	900. 613. 407.	900. 613. 407.	900. 613. 407.	400. 613. 407.	900- 613- 407-	900 900 900 900 900 900	10400. 6125. 4874.
PURCH. CORN	0	0	0	0	0	0	0	366.	2099.	2099.	0		4564.
SEED FFAILL7FR	00	00	999. 1031.	1434.2784.	0	00	00	00	00	723.	00	00	5437. 5568.
CHEMICALS	) O	0	•	170.	2394.	0	0	0	0		Ð	0	2564.
CHOP INSUR.	0	0	0	0 (	0.100	0	0	00	0 0	0	1104.	0	104.
MACH. MIKE ULTEDING	0 27.0	0		0	.1605	0 233	233.	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	0		-100X	233.	
VET. A MED.	200.	200.	200.	200.	200.	200.	200.	200-	200	200.	200.	200.	2344
LSK SUPPLIES	233.	233.	<b>m</b>	233.	233.	233.	233.	233.	233.	233.	233.	233.	2764.
LVSIK. MKTG.	400.	400.	• •	400°	400°	400°	400.		• 0 0 •	40C.	• 00 •	• 0 0 •	4 - A G
FANN TAXES	•105	• • • • •	-	•••	1098.	• •	• • • • •	• • •	•••	1098.	0	0	2145.
FARM INSUR.	0	3643.	•	0	0	0	0	0	6	0		0	3643.
UTILITIES FAM: VIVING	368.	308. 1250.	1250.	368. 1250.	1250.	1250.	1250.	1250.	1250.	1250.	1250.	1250.	15000.
INC A SS TAX		5300.	0	0	0	j) j	, , ,	0	) 1 1	0		: } 	5360.
MIN END BAL	500	500.	500.	500.	50	-000 5705	500.	500.	500. 7800	500. 0626	500.	500. 1098.	500. 02007.
101 • 001F LOW	•850C	14041	-9211	• • • • •	16/221	•0010	2	•1100	• • • • • •	2	4	0	2
SURP. UR DEF	52685.	49175.	57669.	63270.	64023.	68161.	72414.	75288.	77124.	77349.	77580.	69033 <b>.</b>	117574.
••• CAPITAL P	PURCHASES	*											
масн. РUКСН. TO1. CAP PUR	00	00	00	00	00	00	00	00	00	00	11000.	00	11000.
SURP. OR DEF	52685.	49175.	57669.	63270.	64023.	68161.	72414.	75288.	77124.	77349.	665RU.	69033 <b>.</b>	106674.
*** DEBT PAYM	PAYMENTS ***												
FLB PAYMENT JNK NRE PYMT TOT DEBT PAY	1875. 1547. 3422.	1875. 1547. 3422.	1875. 1547. 3422.	1875. 1547. 3422.	1875. 1547. 3422.	1875. 1547. 3422.	1875. 1547. 3422.	1875. 1547. 3422.	1875. 1547. 3422.	1875. 1547. 3422.	1875. 1547. 3422.	1875. 1547. 3422.	22495. 18568. 41003.
SURP. OR DEF	49263.	45753.	54247.	59848.	60601.	64739.	68992.	71866.	73702.	13927.	63158.	65611.	65611.
ACC. AO INT. Ao Prin. Pay	00	00	00	00	00	00	0 0	00	00	00	00	00	00
*** AO LOAN BALANCES		•											
HEG AO BAL	00	¢ ¢	00	00	0 0	00	00	00	00	00	90	00	00
E4D 40 84L E4D CASH 84L	49763.	46253.	54747.	60348.	61101.	65239.	69492.	72366.	74202.	74427.	63658.	06111.	<b>FAILI</b> .

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COMPUTER DECÍSION AIDS EXTENSION FARM MANAGEMENT

	OCT NOV DEC TOTAL	14298• 13031 0 12500	0 0 0 0 3375. 7098. 10185. 9739. 85035. 10985. 22955. 24037. 113941.		36. 136. 0		00	0 0 0 2732. 0 1121. 0 1121.	1233. 0 242- 239-	207. 205.	415. 410.	163. 166. 0 0	0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	• 6232• 3391• 6	6545 <b>. 16723. 20646. 47</b> 941.		13400. 0 0 13400. 0 11000. 0 11040. 0 0 0 0 0 70515. 13400. 11000. 0 94915.	55. 5723. 206464		0 0 0 58516. 13400. 10000. 0 23400. 13400. 10000. 0 81918.		986. 986. 986. 7865. 789. 938. 938. β394. 1775. 1924. 1924. 16259.	4770. 13798. 18722. 18732.	0 0 0 10. 0 0 0 758.		0000
	SEP	12875. 0	0 7167. 20042.		36	224.	00	00	28	110.	220	•957 0	0	1000.	500	3032.	17010.		0 70518. 70518.	-53508.		58518. 0 58518.		986. 636. 1623.	3387.	00		0
	AUG	9236. 0	0 7279. 16515.		- m I	152. 218.	00	00	25	107.	215.	-957 0	0	1090	0	t	13501.		0000	13501.		909		490. 636. 1127.	12375.	00		00
	JUL	5559. 0	0 7317. 12876.		36	152. 218.	00	00	125.	107.	215.	•952 0	0	1000.	0	3013.	9862.		0000	9862.		000		490. 636. 1127.	8736.	00		0
РRОЬРАМ: 56 Т ). YR 1	NUL	2047.	0 7133. 9180.		ဆို	213. 213.	00	00	0 122.	105.	210.	•957 0	- 0	1000.	005	2995.	6185.		0000	6185.		000		490. 636. 1127.	5059.	00		0
IGRICULTURAL ECONOMICS PROGRAM Cujected Cash Flow Budget ad Expand TIESTALL And Yrl 1-20-79	MAY	1530. 2500.	0 7020. 11050.		136.	213. 213.	0 1116.	2592 <b>.</b> 0	1233 <b>.</b> 122.	105	210	440.	0170	1000.		8377.	2674.		0000	2674.		000		490. 636. 1127.	1547.	00		00
CULTURAL E CTED CASH CXPAND TIE 79	APR	500.	3375. 5894. 9769.		0	208.	2832.	140.	120.	102.	205.	120.0	0 174	1000	0 500.	7128.	2041.		0000	2641.		000		490. 636. 1127.	1514.	4. 480.		•984 0 1252
AGRIC PROJEC 6RAD 98-20-	MAR	500.	5743. 6243.		0	208.	1080. 1116.	00	$\sim$	102.	101	N	0 170	1000.	0	4832.	1411.			1411.		000		490. 636. 1127.	284.	6. 278.		758. 480.
A R NI	FE8	15100. 2500.	5146. 22746.	·	0,5	208.	00	5.5	u 120.	102.	205.	169.0	1012.	1000	18729. 500.	22377.	369.	* *	0000	369.		000		490. 636. 1127.	-758.	00	\$	0 758. 500
ISION AID M MANAGEM ON SERVIC MINNESOT OKS ***	NAL	13031. 0	0 5314. 18345.	TOWS ***	0,5	203.	00	00	0	100.	200.	128.0	0 1 7 4	1000.	0 500.	2618.	15721.	PURCHASES	0000	15727.	***	000	ENTS ***	490. 636. 1127.	14600.	00	BALANCES .	0
COMPJIER DECISION AIDS EXTENJION FARM MANAGEMENT AGRI - EXTENSION SERVICE UNIVURSITY OF MINNESOTA ••• CASH INFLOWS ***		BEG CASH BAL Copn	HAY LVSTK MILK TUTAL INFLOW	*** CASH OUTFLOWS **	HIRED LAHOR	REFAIRS PURCH, FEED Seed	SEEU FERTILIZER	CHEMICALS CHOP INSUR.	MACH. HIKE Hkeeding	VET. A MED. I SK SUPPLIFS	LVSTK. MKTG.	GAS+UIL+UKT FARM TAXES	FARM INSUR.		< 10	TUT. OUTFLOW	SURP. OR DEF	*** CAPITAL PI	НЧ. LVSX РUR 44СН. РUKСН. 6LD6. РUKСН. 101. САР PUR	SURP. OR DEF	*** NE* CREDI	FLB LOAN BNN NGE LOAN TOT NEW CRED	*** DEBT PAYMENT	FLB PAYMENT BNK NRE PYMT TOT DEBT PAY	SURP. OR DEF	ACC. AO INT. AO PHIN. PAY	*** AU LOAN B	HEG AO HAL END ) HAL

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COMPUTEM DECISION AIDS EXTENSION FARM MANAGEMENT AGRI. EXTENSION SERVICE UNIVERSITY OF MINNESOTA	ISION AID 4 MANAGEM 3N SERVIC MINNESOT	A E E N I	AGRIC	ULTURAL EI TED CASH I XPAND TIE: 79	GRICULTURAL ECONOMICS PROGRAM: CJECTED CASH FLOW BUDGET AD EXPAND TIESTALL ADD. YK2 -20-79	PROGRAM: ET • YK2							
448 CASH INFLOWS **	*** S#0												
	NAL	FEB	MAR	APR	MAY	NOP	JUL	AUG	SEP	0CT	NON	DEC	TOTAL
HEG CASH BAL L'STK MTLK TOTAL INFLOW	19222. 9438. 28660.	23690. 9236. 32926.	15686. 8628. 24314.	17148. 8474. 25622.	16070. 8328. 24398.	11964. 9130. 21094.	14857. 9103. 23960.	17704. 9044. 26748.	20493. 8072. 28565.	22291. 7965. 30256.	22678. 8194. 30872.	10425. 11349. 21774.	19222 <b>.</b> 106961. 126183.
*** CASH OUTFLOWS	-0¥S ***												
					,					į		¢	
HIRED LABOR	0	0	0	0	871.	871.	871.	871.	22	871.	871.	0	6100.
REPAIRS UNDCH FEED	165.	165. 290.	165.	331.	331. 290.	331.	331. 295.	331. 295.	331.	-155 -005	310.	165. 315.	30.00 90.00 90.00
	0	0	1080.	1444 .	0	0	0	0		0	a	0	2524.
FERTILIZER	0	0	1116.	2832.	1116.	0	0	0	0	600°	ъ¢	0	5664.
CHEMICALS	0	0	0 4	140.	2592.	0	00	00	00	00	.1011	<b>)</b> (	2132
CHOP INSUR.	00	0 0	2	<b>,</b>	1705	5 0					1785.		-1211
MACH. HIKE	0	0 144	145	146	166	166	169.	149.	. 72.	172.	178.	1.81	• a - o - o - o - o - o - o - o - o - o -
VET A MED.	142	142.	142.	142.	142.	142	145.	5 d	147	147.	152.	155.	1747.
	146	1 1 1	166	166	166	166	169.	169.	172.	172.	178.	181	2035.
LSA SUFFLES	285.	285.	285.	285.	285.	285.	290.	290.	295.	295	305.	310.	3444
GAS-OIL-DRY	230.	230	230.	230.	460.	460.	460.	460.	460.	460.	.069	230.	4602.
FAHN TAXES		0	0	0	705.	0	0 (	0	0	105.	0	00	1409.
FARK INSUR.	0	2070.	0	0	0.50	0	0.00		0,100	0 361	0 251	5	• 0 - 0 V
UTILITIES	351	351.	151.	351.	121.	10501	10201	•100 .0301	10501	• • • • • • •	1000	• 1 0 5 0 1	15000.
FAM. LIVING	•0<71	10200	•0c21	• nc > 1	•0c21	• > C > T	0 • 0 C 7 T	3	• 00 0 1	• •	• > C 3 4	• 00 • 01 • • •	10200
c. ٿ	500.	5005	500.	500.	500.	500.	500.	500.	500.	-00¢	500.	500.	-00-C
TOT. OUTFLOW	3545.	15815.	5741.	8127.	****	4812.	4831.	4831.	4849.	6154.	8022.	3638.	75475.
SURP. OR DEF	25115.	17110.	18572.	17495.	13388.	16281.	19129.	21918.	23716.	24102.	22850.	18137.	50308.
*** CAPITAL P	PURCHA SE S	• • •											
MACH. PURCH.	0	0	o	0	0	0	0	0	0	0	.00011	0	11000.
TOT. CAP PUR	0	0	0	0	0	0	0	0	0	0	11000.	0	11000.
SURP. OR DEF	25115.	17110.	18572.	17495.	13388.	16281.	19129.	21918.	23716.	24102.	11850.	18137.	39308.
DENT PATM	PAYMENTS ***												
FLB PATMENT	986.	986.	986.	986.	986.	986.	986.	986.	986.	986.	986.	986.	11833.
	939 <b>.</b> 1925	939. 1925.	939 <b>.</b> 1925.	939 <b>.</b> 1925.	939 <b>.</b> 1925.	939. 1925.	939 <b>.</b> 1925.	939. 1925.	939. 1925.	939. 1925.	939. 1925.	939 <b>.</b> 1925.	11263. 23096.
SURP. OR DEF	23190.	15186.	16648.	15570.	11464.	14357.	17204.	19993.	21791.	22178.	•9926•	16212.	16212.
ACC. AO INT.	0	0	Ð	0	0	0	0	0	0	0	0	0 (	0
AO PRIN. PAY	0	0	0	0	c	0	0	Ð	0	9	c	5	5
*** AO LOAN BALANCES		• • •											
869 AN 84L	Ð	•	0	0	0	0	0	0	00	00	0	00	00
END 40 HAL END CASH HAL	.06365 0	0 156d6.	0 17148.	0 16070.	0 11964.	0 14857.	0 17704.	0 20493.	0 • 16225	0 22678.	0 10425.	16712.	0 16712.

OGRAM:	YK3
ILCS PR	. ADD.
AGRICULTURAL ECONOMICS PROGRAM: ROJECTED CASH FLOW BUDGET	IESTALL
LTURAL	CPAND T
AGRICULTURAL ECONOMICS PR PROJECTED CASH FLOW BUDGET	GRAD EXPAND TIESTALL ADD. 08-21-79

COMPUTER DECISION AIDS EXTENSION FARM MANAGENENT AGRI. EXTENSION SERVICE UNIVERSITY OF MINNESOTA

	1012	16712. 5000. 127006.			0 5100. . 3306.											-1		1-	74918.		0 11000. 42218. 53218.			40000- 40000-		13202. 11263. 24465.	. 37235.	00		00
	DEC	35 <b>31.</b> 0 9805. 43336.			0 165.	366.	00	0	00	210.	180.	250.	242	00	S	1250.	4	3834.	39502.		000	39502.		00		1328. 939. 2267.	37235.	00		00
	NON	44959. 0 9530. 54489.			871. 331.	366.	30		1785.	219.	180.	360-	727.	5 5	5	1250.		.1918	45298.		11000. 0 11000.	35298.		00		1328. 939. 2267.	33031.	00		00
	0CT	43381. 0 9806. 53187.			871. 331.	51	0 663.	0 0	00	207.	177.		484		21	1250.	4	-00- 6461.	46126.		000	46726.		00		1328. 939. 2267.	44459.	00		00
	SEP	41567. 0 10875. 52442.			871. 331.	56	00	0	00	204.	175.	- C	484	- c	51	1250.	ंद	5076.	47366.		0 42218. 42218.	5148.		40000. 40000.		1328. 939. 2267.	42881.	00		00
	AUG	37100. 0 10949. 48049.			871. 331.	5	00	0 3	00	201.	172.	345.	484.	o q	5	1250.		24	42991.		000	42991.		00		986. 939. 1925.	41067.	00		00
	JUL	32737. 0 10827. 43564.			871. 331.	<del>4</del> 0	00	00	0	96	170.	340-	484.	00	ទី	1250.		5039.	38525.		000	38525.		00		986. 939. 1925.	36600.	00		00
	NNC	28912. 0 10270. 39182.		I	331.	340.	00	00	00	95	167.	335	484.	00	51	1250.	0	5021.	34161.		000	34161.		00		986. 939. 1925.	32237.	00		00
	MAY	30426. 0 10423. 40849.			331.	40	.176	2268.	1785.	195.	167.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	242	• • • • •	្រូ	1250.	0	10512.	30337.		000	30337.		00		986. 939. 1925.	28412.	00		00
	APR	29267. 0 10573. 39840.			331.	335.	2615.	150.	0	192.	165.	330.	242	00	51	1250.		7989.	31851.		000	31851.		00		986. 939. 1925.	29926.	00		00
	MAR	25274. 0 11044. 36318.			0 165.	330.	.179	0 0	0	190.	190.	325.	242.	00	351.	1250.	500	5626.	30691.		<b>600</b>	30691.		00		986. 939. 1925.	28767.	00		00
	FEB	23317. 5000. 11188. 39505.			165.	325.	00	0 <	0	187.	187.	320.	242.	2070-	351.	1250.	,000.	12806.	26698.	*	000	26698.		00		986. 939. 1925.	24774.	00	*	00
*** SMO"	NAU	16712. 0 11716. 28428.	1045 ***	G	165.	325.	00	00	00	187.					351.	1250.	500	3686.	24742.	URCHASES	• • •	24742.	*** 1	00	ENTS ***	986. 939. 1925.	22817.	c o	ALANCES *	00
*** CASH INFLOWS ***		BEG CASH BAL Corn Lvstk Milk Total Inflow	*** CASH OUTFLOWS		HIREU LABUR	PURCH. FEED	FERTILIZER	CHEMICALS CROP INSUD.	MACH. HIKE	HREEUING	LEI A MED.	LVSIK. MKTG.	GAS+OIL+DRY FAUM TAVES	FARM INSUR.	UTILITIES	FAM. LIVING	MULY 35 TAX	TOT. OUTFLOW	SURP. OR DEF	••• CAPITAL PUKCHASES	МАСН. РUKCH. BLD6. PUKCH. Tot. Cap PUR	SURP. OR DEF	*** NEW CREDIT	FLB LOAN TOT NEW CRED	*** DEBT PAYWENT	FLB PAYMENT BNK NRE PYMT Tot deat pay	SURP. OR DEF	ACC. AO INT. Ao Prin. Pay	*** AO LOAN BALANCE	REG AO BAL Enú aù bal

	TOTAL	72. 37735. 30. 152074. 52. 189809.			203. 4069. 407. 4751.					33. 2125. 00. 2337.		•	• •	_	368. 4420. 250. 15000.		500. 500. 995. 95516.	57. 94293.		0 11000. 0 11000.	35 <b>7.</b> R3293.		.328. 15940. 939. 11263. 2257. 27203.	90. 56090.	00		00	54540
	DEC	5. 51877 9. 11480			407. 20 407. 20	5 0	00	. • •	2051.	N N	10	4 (		-	360. 36 260. 124	•	00. 54.	39. 5835		1000. 1000.	3639. 583		1328. 13 939. 9 2267. 22	72. 5609	00		00	2. 56
	NON	91. 61615. 74. 11979. 65. 73594.				0	23.	0 110					501. 91 863.		368. 3.	• •	500. 51 584. 89	81 <b>. 6</b> 46		0 110	381. 536		28. 39. 67.	.15. 513	00		00	ഹ
	000	592 124			•	-	~ 0	0 0		230. 2				~	368. 3 260. 12	• •	500. 5 5481. 83	58. 633		00	58. 63		1328 <b>.</b> 13. 939 <b>.</b> 9 2267. 22	'91. 6111 <sup>-</sup>	00		00	5
	SEP	48322. 53530. 12456. 13009. 50778. 66539.			407. 4 401. 4	00				230. 2			• 2	0	-	• • •	500. 5 481. 54	.297. 610		00	97. 610		28. 39. 67.	3030. 587	00		00	53530. 5929
	AUG					0 0		50			227. 2		• •	0	368. 3 260. 12	• 0	00. 62. 5	• 55		00	0086. 552		1328. 13 939. 9 2267. 22	822. 53(	00		00	
ам: •	JUL	62. 43594. 61. 11957. 23. 55551.				00	0	• •	4	227 <b>.</b> 2					368. 3 260 12	• 0	500. 54	5361. 50088		00	ۍ •		28. 39. 67.	3094. 478	00		00	4
AGRICULTURAL ECONOMICS PROGRAM: Rajected Cash Flow Budget Rad Expand Tiestall Add. YR4 B-21-79	NUL	~~v			407 4	00	031.	.394. 0							-	•	υ.	9 <b>.</b> 4		00	0129. 45361		1328 <b>.</b> 13. 939. 9 2267. 22	62. 4	00		00	ر مع 162 مع
RAL ECONO CASH FLOW D TIESTALI	RMAY	• • • •				~		170. 23		221. 2 195					368. 3	• •	1	158. 4012		00	58. 4		1328- 13 939- 9 2267- 22	194. 378	00		00	02. 3A
AGRICULTU RAJECTED RAD EXPAN 8-21-79	АРК	93. 37284. 26. 13330. 19. 50614.				_				224. 2			•	0	-	•0	6	51. 4105		00	051. 410		1328. 13 939. 22 2267. 20	784. 387	00		00	286. 192
6.36	A M	324 135 460		ۍ ا	1.01	0	10	0 0		219 <b>.</b> 2			301. 3	2703.		10		ň.		0 <b>0</b>	260. 390		8 <del>.</del>	• 36	00		00	رد 17 دن 17
4 AIDS 1466ment 14vice 16sota	N FEB	35. 44265. 53. 13601. 98. 57866.	*		371. 37	00	00	0 0		213 <b>.</b> 2						00091 0		32. 34260	ASES ***	• •	32. 34	* *	1328 <b>. 13</b> 2 939. 93 2267. 226	.3765. 31993	00	ANCES	0	ربر ۲۲ ۲۶۰
PECISION FARM MAN ENSION SE Y OF MINN	CASH INFLOWS	SH <sup>B</sup> AL 37735. MILK 13163. INFLOW 50898.	CASH OUTFLOWS			NAC	æ				_			. a	•	~ ×	ा स	UR DEF ∔6032	TAL PURCHASE	PURCH. CAP PUR	DEF 460	PAYMENTS		DEF 4	INI. Pay	AO LOAN BALAN	8AL	0 84L 1-4 801 662
エルトラ	CASH	BEG CASH BAL LVSTK MLLK TOTAL INFLOW	*** CASH	HIRED LAB	HEVAIRS	PURCH. CC	FERTILIZER	CHEMICALS	MACH. HIAE	HREDING	LSK SUPPL	LVSTK. MKTG	645+01L+DAY	FARM INSUR	UTILITIES	FAM. LIVING	01. 01. 01.	à	ose CAPITAL	MACH. PUÍ TUT. CAP	SURP. OR	••• DEB1	FLS PAYMENT UNK NRE PYMT TOT DEBT PAY	SUkP. OR	ACC. AU I AO PRIN.	1 C4 ***	HEC AC BAL	d (

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COMPUTEN DECÍSION AIDS EXTENSION FARM MANAGEMENT AGRI. EXTENSION SERVICE UNIVERSITY OF MINNESOTA	ISION AIE M MANAGE ON SERVIC MINNESO1	DS JENT TA	AGRICUL PROJECTE GRAD EXP 08-21-79	AGRICULTUHAL ECONOMICS PROGRAM: Prjected Cash Flow Rudget Pr <b>b</b> Expand TS Add Yrs 8-21-79	.CONOMICS FLOW BUDG ADD YR5	РНОСКАМ: 56.T							
*** CASH INFLOWS **	*** SMO												
	NAL	FEB	MAR	APR	MAY	NUL	JUL	AUG	SEP	001	NON	DEC	,TOTAL
BEG CASH BAL Lystk milk Total Inflow	56590. 11395. 67985.	61223. 15090. 76313.	42148. 15356. 57504.	48714. 15385. 64099.	52740. 14283. 67023.	53418. 13571. 66989.	59723. 13322. 73045.	65779. 12679. 78458.	69827. 13880. 43797.	74241. 13238. 87479.	76429. 13447. 89876.	68154. 12327. 80481.	56590. 143773. 220563.
★+* CASH OUTFLO#S	1045 ***												
		000	000			001	000				000		00101
HINEU LABOR Repairs	900. 203.	900. 203.	203.	407.	900. 407.	407.	407.	-006 407	900.	407.	407.	900. 203.	10499.
PURCH, FEED	*0/°	407.	2	407.	407.	401°	407.	407.	407.	407.	407.	407.	4018.
SEFD		• •	998.	14 19 -		0		• C C C T	• 4 4 7 • • • • • • • • • • • • • • • •	• • • • • •	00		24.37
FERTILIZER		0	1031.	2784	031	0	0	• •		723.	0	0	5558
CHEMICALS	0	0	0	170.	2394.	c	c	0	0	0	0	0	2564.
CHOP INSUR.	00	00	00	• •	0	00	00	0 0	00	00	1104.	00	1104.
HALEDING	233.	233.	8	233.	233.	233.	233.	233.	233.	233.	233.	233.	. 661 4
VET. A MED.	200-	200.	200.	200.	200.	200.	200.	200.	200.	<00×	200.	200.	2 2 4 4
LSK SUPPLIES	233.	233.	233.	233.	233.	233.	£53.	233.	233.	د33 <b>.</b>	233.	233.	2144
LVSTK. WKIG.	400.	*00*	400.	400°	400.	400.	400.	400.	400	400.	400 <b>.</b>	400.	
FARM TAXES	•105 0	• 7 0 5	<b>.</b>	501• 0	861.	•100	100	•104	•100	863.	• 20 K	• 1 0 5 • 3	-2104
FARM INSUR.	0	2103.	0	0	0	0	0	0	0	0	5	0	2101.
UTLITES .	368.	368.	36.8	368.	368.	368.	368.	36.8	368	368.	368.	354	4470.
FAM. LIVING	1250. 0	1250.	1250.	1250.	1250.	1250.	1250.	1250.0	1250.	-0521	1250. 0	1250.0	15040. 24700.
	500.	5005	500-	500.	500.	500-	, 500-	500.	500-	, 00 c	500.5	500.	500
TOT. OUTFLOW	4995.	32398.	2	.2656	11837.	5499.	5499.	6855.			B954 -	4945.	Inulal.
SURP. OR DEF	62990.	43915.	50481.	54507.	55185.	61490.	67546.	71593.	76008.	78196.	80921.	75486.	111422.
••• CAPITAL PURCHASE	URCHASES	* *											
МАСН. РИКСН. Тот. сар Рир	00	00	00	00	00	00	00	00	00	00	11000.	00	11900. 11660.
SURP. OR DEF	62990.	43915.	50481.	54507.	55185.	61490.	67546.	71593.	76008.	78196.	.1569	15486.	100422.
*** DEHT PAYM	PAYMENTS +++												
FLB PAYMENT Hank NRE PYMT TOT DEBT PAY	1328. 939. 2267.	1328. 939. 2267.	1328. 939. 2267.	1328. 939. 2267.	1328. 939. 2267.	1328. 939. 2267.	1328. 939. 2267.	1328. 939. 2267.	1328. 939. 2267.	1328. 939. 2267.	1328. 939. 2267.	1328. 939. 2267.	15940. 11263. 27203.
SURP. OR DEF	60723.	41648.	48214.	52240.	52918.	59223.	65279.	69327.	13741.	15929.	67554.	13219.	13219.
ACC. AU INT. AO PRIN. PAY	00	00	00	00	00	00	00	00	00	00	00	00	00
••• An LUAN BALANCE	S	. 0											
HEG A() 44L EA() AO HAL	60	00	с о	00	60	00	00	00	00	00	00	00	C 0
	61223.	42148.	48714.	52740.	53418.	59723.	65174.	69827.	74241.	76429.	68154 <b>.</b>	.61761	.61167

COMPUTER DECISION AIDS EXTENSION FARM MANAGEMENT AGRI. EXTENSION SERVICE UMIVERSITY OF MINNESOTA	ISION AID MANAGEM DN SERVIC	א ה הני א א	AGRIC PROJEC GRAD E 08-20-	ULTURAL E TED CASH XPAND NEW 79	GRICULTURAL ECONOMICS PROGRAM RUJECTED CASH FLOW BUDGET AD EXPAND NEW TIESTALL YR1 1-20-79	PROGRAM: ET YRI							
*** CASH INFLOWS	945 #0#												
	JAN	FEB	MAR	APR	ΥAY	NUC	JUL	AUG	SEP	0CT	VON	DEC	TOIAL
BEG CASH BAL Corn	13031.	15100. 2500.	500. 0	500	1530. 2500.	2047. 0	5559 <b>.</b> 0	9236. 0	12875. 6	3021. 0	3538. 7500.	11700. 0	13031. 12506.
HAY LVSTK MILK TOTAL INFLOW	0 5314. 18345.	0 5146. 22746.	0 5743. 6243.	5894. 5894. 9769.	0 7020. 11050.	7133. 9180.	7317. 12876.	0 7279. 16515.	0 7167. 20042.	0 7099. 10119.	10185. 21223.	9739. 21439.	85035 85035 113941.
*** CASH OUTFLOW	LOWS ***												
ALABOR LAHOR	0	0	0	0	136.	36	36	- 19	36	36	- ŶÊ	0	955.
REPAIRS Puhch. FEED	76. 203.	76. 208.	76. 20A.	152. 204.	152 <b>.</b> 213.	152. 213.	152. 218.	218.	152. 224.	152. 325.	152.	417.	1514. 1979.
SEED FERTILIZER	00	• •	1080. 1116.	1444. 2832.	0 1116.	00	00	00	00	0 200.	50	00	2524 . 5504 .
S D	00	00	00	140.	592	00	00	00	00	00	0	<b>Ç</b> ()	2132.
MACH. HIME Rafe()ING	0	0 120.	120.	120.	1233. 122.	<ul> <li>N</li> </ul>	S S	25	28	27	5 G	- 6E	2461.
VET. A MED. SK SUPPLIES	117.	102.	000	102.	105.	0	03	107.	282	87	97	39	1514.
א כי ו	200.	205. 128	205.	205. 124.	210.	210. 256.	215.	215. 256.	220 <b>.</b> 256.	320. 256.	415. 383.	413.	3024. 2555.
FARM TAXES	0 <	0 0101	00	00	440 <b>.</b>	00	00	0 0	00	40	00	00	010
UTILITIS FAM. LIVING	178.	178.	178.	178.	178.	178.	178.	178.	178.	17A.	178.	179.	2136.
INC A SS TAX		18/29.							) ( ) (	, ,			18/29.
MIN END HAL IJI. OUTFLOW	500. 2618.	22377.	<b>500.</b> 4832.	- 200- 7124.	500. 8377.	-00c -2995	3013.	3013.	3032.	500. 4440.	500. 6232.	500. 3391.	5450.
SURP. OR DEF	15727.	369	1411.	2641.	2674.	6185.	9862.	13501.	17010.	5619.	14991.	18048.	47991.
*** CAPITAL PI	PURCHASES	***											
ЕR. LVSK РUR №£СМ. РUКСМ. ELU6. PURCM. TOT. CAP PUR	0900	0000	0000	0000	0000	0000	0000	0000	0 0 172692. 172692.	13400. 0 13400.	0 11000. 0 11000.	0000	13400. 11000. 172692. 197092.
SURP. OR DEF	15727.	309.	1411.	2641.	2674.	6185.	9862.	13501.	-155682.	-1721.	3991.	18048.	-101671-
*** NEW CREDI	*** I												
FLB LOAN BMK NRE LOAN TOT NEW CRED	000	000	000	000	000	000	000	000	160692. 0 160692.	0 13400. 13400.	0 10000- 10000-	000	166592. 23400. 184092.
••• DEAT PAYM	AYMENTS ***												
FLB PAYMENT BNK NRE PYMI TOT DEBI PAY	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	490. 536. 1127.	490. 636. 1127.	490. 636. 1127.	1852. 636. 2489.	1852. 789. 2642.	1852. 939. 2791.	1852. 938. 2791.	11329. 8394. 19723.
SURP. OR DEF	14600.	-758.	284.	1514.	1547.	5059.	8736.	12375.	2521.	3038.	11200.	15258.	15268.
ACC. AO INT. AO PRIN. PAY	0 0 ,	00	6. 278.	4. 480.	00	00	00	00	00	00	00	00	10. 758.
0 LUAN B	BALANCES	*											
o£G AO BAL E40 AO BAL E40 CASH BAL	0 15100 •	0 758. 500.	758. 480. 500.	480. 0 1530.	0 0 2047.	0 0 5559	0 0 9236.	0 0 12875 -	0 0 120E	0 3538.	0 11700 •	0 0 15758.	0 0 15758.

COMPUTER DECISION AIDS Extension farm Management agri. Extension Service UNIVERSITY OF MINNESOTA	ISION AID M MANAGEM ON SERVIC MINNESOT	OS HENT A	AGRICUL PROJECTE GRAD EXP 08-20-79	AGRICULTURAL ECONOMICS PROGRAM: Rojected Cash Flow Budget Rad Expand New Tiestall YR2 8-20-79	CONOMICS FLOW BUDG TIESTALL	PROGRAM: SET YR2							
*** CASH INFLOWS ***	0¥S ***												
	NAU	FEB	MAR	APR	MAY	NUL	JuL	AUG	SEP	0CT	NON	DEC	TOTAL
BEG CASH BAL LVSTK MILK TOTAL INFLOW	15758. 9438. 25196.	19237. 9236. 28473.	14513. 8628. 23141.	14986. 8474. 23460.	12797. 8328. 21125.	7197. 9130. 16327.	8979. 9103. 18082.	10715. 9044. 19759.	12393. 8072. 20465.	13080. 7965. 21045.	11972. 8194. 20166.	500. 11349. 11849.	15758. 106961. 122719.
*** CASH OUTFLOWS	LOWS ***												
HIRED LABOR	0	0	0	0	871.	871.	871.	871.	871.	871.	871.	0	£100.
PAIRS	288.	288.	288.	576.	576.	576.	576.	576.	576.	576.	576.	268.	5757.
PUKCH. FEEU SFED	•062	•067	-062 1080	-062 1464	-062	•062	-295. 0	-295. 0	300.	300.	310.	315.	3552
JEETILIZER	0	0	1116.	2832	1116.			00	- c	, 004	•	• c	1004 1004 1004 1004 1004 1004 1004 1004
CHEMICALS	0	• •	0	140.	2592	0	0		0	2	00	0	2732.
CROP INSUR.	0	0	0	0	0	0	0	0	•	0	1121.	0	1121.
MACH. HIRE	Ō	0	0	0	1785.	0	0	0	0	0	1785.	0	-01CE
	166.	166.	166.	166.	166.	166.	169.	169.	172.	172.	178.	181.	2638.
VE1. A MED.	142.	142.	142	142.	142.	142.	145.	145.	147.	147.	152.	155.	147.
LSK SUPPLIES	- 00- 000	-00-	166.	160.	166. 201	166.	169.	169.	172.	172.	178.	181.	2038.
645+011+DRY	230.	230.	230.	230.	4602	450.	4 4 0 0	- 2 - 2	- 644	- C 4 3	- 00-9 9 - 00-9	-010 -050	64740 6500
FARM TAXES	0	0	0	0	1088.	, <sup>-</sup>	;	0	0	1088.	0	0	2115.
FARM INSUR.	0	3602.	0	0	0	Ū	0	0	0	0	0	0	3502.
UTIL ITIES	351.	351.	351.	351.	m	351.	351.	5	351.		351.	351.	4209.
	1250.	1250.	1250.	1250.	1250.	1250.	1250.	1250.	1250.	1250.	20	1250.	15000.
VIN END DAI		*****	500	9 2 2 2		003	200		500	0 00 3		4	• 00 • •
TUT. DUTFLOW	3668.	11670.	5864.	8374.	11638.	5057.	5076.	5076.	5094	6782.	8267.	3760.	- 200- 74824
SURP. OR DEF	21528.	16803.	17277.	15084.	9487.	11269.	13006.	14683.	15371.	14263.	11899.	8089.	47895.
** CAPITAL PL	PURCHASES	* • *											
MACH. PURCH.	00	00	00	00	00	00	00	00	00	00	11000.	00	11000
	2	2	>	,	>	>	>	>	5	þ	• 20011	5	• • • • • •
SURP. OR DEF	21528.	16803.	17277.	15088.	9487.	11269.	13006.	14683.	15371.	14263.	899.	8089.	36895.
*** DEBT FAYMENTS	ENTS ***												
FLB PAYMENT BNK NRE PYMI Tot deat bax	1852. 939.	1852. 939. 2701	1852 <b>-</b> 939.	1852. 939. 3301	1852. 939.	1852. 939. 3701	1852. 939. 3703	1852. 939. 2701	1852. 939.	1852. 939.	1852. 939.	1852. 939.	22225. 11263.
	• 1 4 1 7	• • • • • •	• 1 4 1 •	C1 7 4 •	-1217	• 1 4 1 7	• 1 4 1 9	-1217	e1213	• 1 4 1 2	• 1617	- 1413	
SURP. OR DEF	18737.	14013.	14486.	12297.	6697 <b>.</b>	8479.	10215.	11893.	12580.	11472.	-1891.	5298.	3407.
ACC. AO INT. Ao Prin. Pay	60	00	00	00	00	00	00	00	00	00	00	16. 1891.	16. 1891.
** AO LOAN BALANCE	• ທ	**											
BEG AO BAL End Ad Bal	00	00	00	00	00	00	00	00	00	00	0	191. 0	00
D CASH BAL	19237.	14513.	14986.	12797.	7197.	8979.	10715.	12393.	13080.	11972.	2005	3841.	3891.

AGRI. EXTENSION SERVICE UNIVERSITY OF MINNESOTA	ON SERVIC MINNESOT	א ׂד	68AD E 08-21-	GRAD EXPAND NEW 08-21-79	I TIESTALL	YR3							
*** CASH INFLOWS **	0#S ***												
	NAL	FEB	MAR	АРК	МАҮ	NUL	JUL	AUG	SEP	001	NON	DEC	TOTAL
BEG CASH BAL CORN	3891. 0 11716-	9507. 5000.	15294. 0 11044.	18298. 0 10573.	8346 0423	5338 0270	18052. 0 10827.	+ 0	24660. 0 10875.	25363. 0 9806.	25447. 0 9530.	ന്ന	3441. 5000. 127005.
TOTAL INFLOW	15607.	25695.	26338.	28871.	28769.	25608.	23879.	32253.	35535.	35169.	34977.	22713.	125897.
*** CASH OUTFLOWS **	LOWS ***												
HIRED LABOR Repairs	0 2882	0 288-	0 288.	0 576.	871.	871. 576.	871. 576.	871. 576.	871. 576.	н71. 576.	871. 576.	0 288-5	6100. 5757.
PUNCH. FEED	325.	325.	330.	335.	340	140	346.	351.	356.	.161.	366.	366.	4 4 1 .
SEED FERTILIZER	00	00	945.	-cf135. 2615.	0 •779	00	00	50	00	663.		00	5231.
CHEMICALS CHOP INSUR.	• •	• •	<b>c</b> c	150. 0	2268. 0	00	00	00	00	• •	0 1051.	00	241r. 1051.
MACH. HIKE HiteDING	0 187.	0 187.	0 190-	0 192.	1785.	0 195.	0 198.	0 201.	0 204.	207.	1795.	0 210.	2310.
VET. A ME().	160.	100.	162.	165.	167.	167.	170.	172.	175.	177.	180.	140.	2116.
LUSTK. MATG.	320.	320.	325.	330.	335.	335.	340	345.	350.	155	360.	360.	4073.
GAS.OIL.URY Farm Taxes	242.0	242. 0	242. 0	242.0	242. 1088.	• <del>1</del> 84•	• <del>1</del> 84 •	484. U	484. 0	484. 1088.	.121.	0 •2•2	4002. 2175.
FARM INSUR.	0	3602.	0	0	0	0 عد ا	0	ū	3	0 151	៍	5	3502. 4214-
FAM. LIVING	1250.	1250.	1250.	1250.	1250.	1250.	1250	1250.	1250.	1250.	1250.	1250.	15000.
MIN END HAL	500.	500.	500.	500.	500.	,00¢	,00c	500	500.	.00	500.	500	
TUT. DUTFLOW	3R09.	8111.	5749.	8234 <b>.</b>	11141.	5266.	5284.	5303.	5321.	7u89.	8436.	3956.	72199.
SURP. OR DEF	11798.	. 1.7584.	20589.	20637.	17629.	20342.	23595.	26950.	30214.	28079.	26541.	18756.	63634.
••• CAPITAL PURCHASE	URCHASES	\$ \$											
MACH. PUMCH. HLDG. PURCH. TOI. CAP PUR	000	000	000	90 <b>0</b>	000	000	000	000	0 42218. 42218.	000	11000. 0 11000.	000	11000. 42216. 53218.
StikP. OR DEF	11798.	17584.	20589.	20637.	17629.	20342.	23595.	26950.	-12004.	28079.	15541.	13756.	10480.
aaa NE⊯ CREDII	*** i												
FLB LOAN TOT NEW CRED	00	00	00	00	00	00	00	00	+0000. +0000.	00	00	00	40000. 40000.
*** DEBT PAYMENTS •	AENTS												
FLB PAYMENT BNK NRE PYMT TOT DEBT PAY	1852. 939. 2791.	1852. 939. 2791.	1852. 939. 2791.	1852. 934. 2791.	1852. 939. 2791.	1852. 939. 2791.	1852. 939. 2791.	1852. 939. 2791.	2194. 939. 3133.	2194. 939. 3133.	2194. 939. 3133.	2194. 939. 3133.	23594. 11263. 34857.
SURP. OR DEF	.7009	14794.	17798.	17846.	14838.	17552.	20804.	24160.	24863.	24947.	12408.	15623.	15623.
ACC. AO INT. Ao prin. Pay	00	00	00	00	00	00	00	00	00	00	00	00	00
••• AO LOAN BALANCES		¢ *											
НЕС АО РАL END АО ВАL END САЗН ВАL	0 0 0	0 0 15244 •	0 18298.	0 0 18346.	0 0 15338.	0 0 18452.	0 0 21304.	0 0 24660.	0 0 25363.	0 25447 •	0 0 15404 •	0 0 16123.	0 0 16123.

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AGRICULTURAL ECONOMICS FRUGRAM: PROJECTED CASH FLOW BUDGET GRAD EXPAND NEW TIESTALL YR3

> CUMPUIEN DECISION AIDS EXTENSION FARM MANAGEMENT AGRI. EXTENSION SERVICE UNIVERSITY OF MINNESOTA

*** CASH INFL	INFLOAS ***												
, , 1	JAN	FEd	MAR	RqA	MAY	NOP	JÚL	AUG	SEP	007	NON	DEC	TOTAL
JEG CASH JAL VSTK MILK 101AL INFLOW	16123. 13163. 29286.	21604. 13601. 35205.	17372. 13526. 30898.	21174. 13530. 34504.	22071. 1263d. 34709.	19647. 12461. 32108.	23768. 11957. 35725.	27364. 12456. 39840.	31462. 13009. 44491.	36132. 12474. 48606.	36961. 11979. 48940.	26108. 11480. 37588.	16123. 152074. 168197.
CASH OUTFLOWS	*** SMCT:										·	•	
							•						
HIRED LABOR Revains	-009 -226-	900. 326.	900. 326.	960. . 5 2 .	900.	906. 662	908°	500.	900°	O C	04	00	10800.
PUKCH. FEEU	371.	361.	391.	396.	u va	395.	. 396.	35	401.	407.	407.	407.	4751.
FUNCH. COAN	90	00	0 000	- 0	00	() (	3	0	с (	¢.		0	1200
TLIZER		<b>.</b>	1031.	2784.	1031.	בי כ		<b>,</b> c		0.527		0 6	2437. 556a
CACHICALS	0	0	0	170	394		0	<b>0</b>		3		- -	2564 -
TACH INDER	<b>&gt;</b> 0	<b>-</b>	00		2051.	00	6 4	0 0	ပင	00	1104.	00	1104
Dia Statute	¢13.	249.	224.	227.	227	5	27	230.	30	233.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	(M) (M)	2726.
	182	107.	192	- CO.	195.	ទើរ	195.	161	61	200-	00	5	2337.
SUPPLETED SUPPLETED	1997 1995	375	- 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	221	. 227.	$\sim$	. 221.	250.			233	n M	2720
GAS, DIL DRY	301.	341.	301.	301.	-109 601.	601.	601.	601.	501.	601.	905.	301. 301.	*0.0* 0.010*
FRAM TAXES	<b>c</b> , c		00	0	1246.	ເລ : 		0	0	1246.	0		2442
111004	553 <b>.</b>	+ K-00+	0 368-	99	0 26.0.2	00 10	0.252	इ.स. २	0	<u></u>	0	0 331	4235.
SVIVI	1250.	1250.	1250.	1250.	1250.	1256.	1250.	1250.	1250.	1250.	. 1250.	1250.	15000.
C UN HAN	5005	•0000	0 2003	0	0	6	C	0 0		Ξ.		c	6003
		15201.	1607	9609.	12429.	5707.	57.57.	N C	5726.	-000 -	9199. 19199.	5118.	90265.
surp. OR BEF	-16242	20005.	23607.	24704.	22280.	26401.	30017.	34115.	38755.	39594 •	39741.	32470.	77932.
CAPITAL F	CAPITAL PURCHASES	***							1				
н. руксн.	C	Ð		c	c	e	U	e	c	c	11000.	c	
	0	0			0	0	) a	0	i co		101		11000.
SURP. OR DEF	- • 162 h3	20015.	23807.	24704.	22280.	26401.	30017.	34115.	36765.	39594.	28741.	32470.	66932.
DEST PAYN	PAYMENTS ***											-	
INSEAND	2194.	2194.	2194.	50	2194.	2194	-194-	- :t (	(	2194.	2194.	2194.	5332
	31.55.	3143.	3133.		3133.	3153.	5133.	5133.	3133.	3133+	3133.	3133.	37595.
SURP. OR DEF	21164.	16872.	20674.	21571.	19147.	23266.	26884.	30982.	35632.	36461.	25603.	29337;	£9337.
TAT BAT	00	00	00	00	00	0	00	00	00	0	00	60	<b>00</b>
AJ LUAN BALANCES		***			:			- - -		•	•		
			3	00	0		<b>.</b>	0	0	0	0	0	<b>.</b>
	<b>`</b>	,	;						c	c	c	c	•

COMPUTER DECISION AIDS EXTENSION FARM MANGEMENT	ISION AID M MANAGEM	ENT	AGHIC PROJEC	AGHICULTURAL ECONOMICS PROGRAM: PROJECTED CASH FLOW BUDGET	CONOMICS	PROGRAM: E.T Voe							
UNIVERSITY OF	MINNESOT	ų.∡	08-21-	79		2							
+++ CASH INFLOWS	*** SMO												
	NAU	FE8	MAR	APR	MAY	NUL	JUL	AUG	SEP	001	NON	DEC	TOTAL
BEG CASH BAL LVSTK MILK TOTAL INFLOW	29837. 11395. 41232.	33481. 15090. 48571.	32136. 15356. 47492.	37713. 15385. 53098.	40628. 14283. 54911.	39812. 13571. 53383.	45006. 13322. 58328.	49951. 12679. 62630.	52887. 13880. 66767.	56191. 13238. 69429.	56884. 13447. 70331.	47499. 12327. 59826.	29837. 153973. 193810.
*** CASH OUTFLOWS	LOWS ***												
HIRED LABOR Repairs Punch, fffd	900. 326.	900. 326. 407.	900. 326. 407.	900. 652.	900. 652. 407.	900. 652. 407.	900. 652. 407.	900. 652. 407.	900. 652. 407.	900. 652. 407.	900- 652. 407.	900. 325. 407.	10800. 6524. 4878.
PURCH. CORN	0	0	0	•	0	0	,	1365.	2199.	2199.	0	30	5764.
SEED FERTILIZER	00	00	998. 1031.	2784.	1031.	00	000	000	000	723.	224	500	5768.
CHEMICALS	0 0	0 0	00	170.	-94e2	00		<b>-</b> -	0 0			0 0	2004
CROP INSUR. MACH. MIRE		00	00	- 0	0 2051.	00	00		00	. 0	2051.		4101.
BREEDING	233.	233.	233.	233.	233.	233.	33	33	233.	233.	233.	233.	- 2149.
VET. A MED.	200.	200.	200.	200.	200.	200.	20	000	200.	200.	200.	200.	- 555 C
LSK SUPPLIES	233.	223 2003	400-	<ul><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li></ul>	600. 600.	400.	- 004 - 004	- 004	400.	400.	- 00-4	<ul><li>2.5</li><li>2.0</li><li>2.0</li><li>2.0</li><li>2.0</li><li>2.0</li><li>3.0</li><li>3.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><li>4.0</li><l< td=""><td>&lt; 7.90 - 2</td></l<></ul>	< 7.90 - 2
	301.	301.	301.	301.	601.	601.	30	20	601.	601.	902.	301.	6412.
FARM TAXES	0	0	0	0	1246.	0	0		0	1246.	0	0	2572
FARM INSUR.	0 370	4235.	34.0	0 472	0 1 4 6	0 36.0	0	0 1 4 8 5 5	0 368	0 36.45	0 . 475	0.446	4630.
	1250.	1250.	1250.	1250.	1250.	1250.	1250.	1250.	1250.	1250.	1250.	1250.	15000.
INC A SS TAX	0	4450.		0	0	0		0	0			0 	4450.
MIN END BAL TUT. OUTFLOW	500. 5118.	500. 13803.	500. 7146.	500. 9837.	500. 12466.	5744.	5744.	-005 7110-	500. 7943.	-000 9412	-200- 9194-	500. 5114.	• ) <del>1</del> 9 3 6 4 6
SUHP. OR DEF	36114.	34769.	40346.	43261.	42445.	47639.	52584.	55520.	58824.	59517.	61132.	54708.	100176.
••• CAPITAL P	PURCHASES	* *											
MACH. PURCH. TOT. CAP PUR	00	00	00	00	00	00	00	00	00	00	11000.	90	11000.
SURP. OR DEF	36114.	34769.	40346.	43261.	42445.	47639.	52584.	55520.	58824.	59517.	50132.	54708.	89170.
••• DEBT PAYM	PAYMENTS ###												
FLB PAYMENT BNK NRE PYMT TOT DEBT PAY	2194. 939. 3133.	2194. 939. 3133.	2194. 939. 3133.	2194. 939. 3133.	2194. 939. 3133.	2194. 939. 3133.	2194. 939. 3133.	2194. 939. 3133.	2194. 939. 3133.	2194. 439. 3133.	2194. 939. 3133.	2194. 939. 3133.	26332. 11253. 37555
SURP. OR DEF	32981.	31636.	37213.	40128.	39312.	44506.	49451 <b>.</b>	52387.	55691.	56384.	*66697	51575°	51575.
ACC. AO INT. Ao prin. Pay	00	00	00	00	00	00	00	00	00	00	00	00	00
*** AO LOAN BALANCE	Ś												
	0 <	00	00	00	00	00	00	00	00	00	00	00	¢ ¢
END CASH BAL	0 33481.	0 32136.	0 •E177E	40628.	0 39812.	45006.	49951.	52887.	0 56191	56884.	47494.	, ,2075.	52075.

COMPUTER DECISION AIDS EXTENSION FARM MANAGEMENT AGRI. EXTENSION SERVICE UNIVERSITY OF MINNESOTA *** CASH INFLOWS ***	ISION AID MANAGEN ON SERVIC MINNESOI	SS 4ENT CA	AGRIC PROJEC GRAD E 09-20-	LULTURAL E TED CASH XPAND NEW 79	AGRICULTURAL ECONOMICS PRÓGRAM: Projected Casm flow budget Grad Expand New Freestall yri 09-20-79	PRÓGRAM: ET L YRI							
	NAU	FE8	MAR	APR	MAY	NUL	JUL	AUG	SEP	0CT	NON	DEC	TOTAL
BEG CASH BAL Corn	13031.	n o	500.	500. 0	1261. 2500.	1698. 0	5126. 0	8717. 0	-	2515. 0	3130. 7500.	56	13031. 12500.
HAT LVSTK HELK TOTAL INFLOW	0 5247. 18278.	0 5080. 22613.	0 5677. 6177.	3375. 5827. 9702.	0 6940. 10701.	0 7049. 8747.	0 12351.	0 7194. 15911.	0 7083. 19354.	0 7015. 9530.	0 10068. 20698.	0 9621. 20977.	3375. 84032. 112938.
*** CASH OUTF	OUTFLOWS ***												
HIRED LABOR Sepatos	0	0	0 75	0	136.	136.	136.	36	136.	136.	8.	э, г	455 <b>.</b>
PURCH, FEED SEED	203.	208. 0	208.	204.	213.	າຕ	218. 218.	218. 218.	224. 224.	325. 325.	- 202 - 7 2 2	•07 •17•	1014 3079.
FERTILIZER CHEMICALS	000	000	1116.	2832.	1116.	00	000	000	000	600. 0	000	000	5664. 2732.
CHUP INSUR. MACH. HIRE	• •	• •	<b>o</b> o	00	0 1233.	00	• •	00	• •	00	1211.	00	1121.
	117.	120. 102.	120. 102.	120.	122.	122. 105.	125.	125.	128.	167.	242.	239. 205.	1767.
LSK SUPPLIES LVSIK, MKTG.	117.	120.	120.	120.	122.	122.	125.	125.	128.	187.	242.	239.	1767.
GAS-OIL-DAY	128.	128.	128.	124.	256.	256.	256.	256.	256.	456.	980. 980.	410. 128.	3024. 2525.
FARM INSUR.	00	1012.	00	90	• 0		90	00	00	• • • •		20	1012.
UTILITIES FAM. LÍVING	178.	1/8.	173.	178. 1000.	178.	178.	178. 1000.	178.	1000.	178. 1000.	178. 1000.	178.	2136.
INC A SS TAX MIN END BAL	0 500.	18729. 500.	0 500.	0 500.	00	0 500.	0	500.	500	•005	0.200.	500	18729.
001	16	22317.	32		8377.	2995.	3013.	3013.	3032.	0.4	6232.	3391.	65950 <b>.</b>
SURP. OR DEF	15660.	236.	1345.	2574.	2325.	5752.	9343.	12898.	16322.	5090.	14466.	17586.	46958.
*** CAPITAL PURCHASE	URCHASES	***											
<b>В</b> R. LVSK PUR MaCH. PukcH. ∋LD6. PukcH. T01. CaP PUR	0000	0000	0000	0000	0000	0000	0000	0000	0 151310. 151310.	13400. 0 13400.	0 11000. 11000.	0000	13460. 11000. 151310.
SURP. OR DEF	15660.	236.	1345.	2574.	2325.	5752.	9343.	12898.	-134988.	-8310.	3456.	17586.	-128722.
*** NEW CREDI	1 eee												
FLB LCAN BNK NRE LOAN TOT NEW CRED	000	000	000	000	000		000	000	.016961 0 139310	0 13400. 13400.	0 10000. 10000.	000	139310. 23400. 162710.
*** DEBT PAYME	ENTS ***												
FLB PAYMENT BNK NRE PYMT TOT DEBT PAY	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	.964 .963	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	490. 636. 1127.	1671. 636. 2307.	1671. 789. 2460.	1671. 938. 2609.	1671. 938. 2609.	10604 8394 18998
SURP. OR DEF	14533.	-891.	218.	1447.	1198.	4626.	8217.	1177F:	2015.	2630.	10856.	14977.	14990.
ACC. AO INT. AO PRIN. PAY	00	00	7. 211.	6. 684.	• •	00	00	0 0	00	00	00	00	13. 191.
*** A0 LOAN BI	ALANCES *												
BÉG AO BAL End Ao Bal End Cash Bal	0 0 15033.	0 891. 500.	891. 680. 500.	680. 0 1261.	0 0 1698.	0 0 5126.	0 0 8717.	0 0 12271.	0 2515.	0 0 3130.	0 0 11356.	0 15477.	0 0 15477-

COMPUTEN DECISION ATDS EXTENSION FARM MANAGEMENT AGRI. EXTENSION SERVICE UNIVERSITY OF MINNESOTA	SION AID A MANAGEM N SERVIC MINNESOT	IS E A	AGRICUL PROJECTE GRAD EXP 08-20-79	GRICULTURAL ECONOMICS PROGRAM OJECTED CASH FLOW BUDGET AD EXPAND NEW FREESTALL YK2 -20-79	CONOMICS FLOW BUDG FREESTAL	PROGRAM: ET L YK2							
*** CASH INFLOWS **	848 SM(												
	NAL	FE8	MAR	АРК	МАҮ	NUL	JUL	AUG	SEP	001	NON	DEC	TOTAL
BEG CASH BAL LVSTK MILK TOTAL INFLOW	15477. 9326. 24803.	19033. 9126. 28159.	14706. 8526. 23232.	15266. 8375. 23641.	13173. 8230. 21403.	7750. 9023. 16773.	9620. 8545. 18165.	10994. 8937. 19931.	12760. 7978. 20738.	13548. 7872. 21420.	12623. 8078. 20791.	500- 11220- 11720-	15477. 105236. 120713.
*** CASH OUTFLOWS ***	*** SMO												
	c	c	c	c	12.0	140	140	160	120	127	[20]	c	0017
HIRED LABOR Repairs Dimen. Ffed	281. 281.	281. 281.	281.	0 562. 290.	871. 562. 290.	871. 562. 290.	871. 562. 295.	8/1. 562. 295.	8/1. 562. 300.	8/1. 562. 300.	871. 562. 310.	281.	6100 5618. 2522
SEED	2	0	1080.	1444.	0	0	0	0	0	0	0	0	2524.
FERTILIZER Chemicai S	00	00	1116. 0	2832. 140.	1116.	00	00	00	00	600.	00	00	5664. 2732.
CROP INSUR.	. 0	0	0	0	0	0	0	0	0	0	1121.	0	1121.
MACH. HIKE	0	0	0	0	1785.	0		0	0,00	0	1785.	0.0.	3570. 2626
HAREUING Vet. A Men.	140.	142	142.	142.	142.	142.	145.	145.	147.	147.	152.	131.	1747
LSK SUPPLIES	166.	166.	166.	166.	166.	166.	169.	169.	172.	172.	178.	181.	2038.
LVSTK. MKTG.	285.	285.	285.	285.	285.	285.	290.	290.	295.	295.	305.	310.	34 34
GAS+OIL+DRY EACH TAVES	230 <b>.</b>	230. 0	230.	230.	1007	460.	460.	460.	460.	1007.	•0690.	-055 0	-2014-
FARM INSUR.		3282.	00	0		00	00	00	0	0			3242
UTILITES	351.	351.	351.	351	351	351.	351 <b>.</b>	351.	351.	351.	351.	351	4209.
TAM. LIVING	• nc/ t	1630.	•0C21	• nc 7 1	• NG7 T	0 0	• nc > 1	• nc>1	• AC21	•0c21	• 0 C 2 I	•nc21	• 00.00
Ē	500.	-004	500.	500.	500.	-00c	500	500-	500.	500.	500.	500.	.006
TOT. OUTFLOW	3661.	11343.	5857.	8358.	11544.	5044	5062.	5062.	5080.	6687.	8253.	3753.	14204.
SURP. OR DEF	21142.	16815.	17375.	15283.	9860.	11730.	13103.	14869.	15657.	14733.	12448.	7967.	46509.
*** CAPITAL PURCHASES	URCHASES	\$ \$											
MACH. PURCH. TOT. CAP PUR	00	00	00	00	00	00	00	00	00	00	11000.	00	11000.
SURP. OR DEF	21142.	16815.	17375.	15283.	9860.	11730.	13103.	14869.	15657.	14733.	1448.	7967.	355U9.
⇔⇔ DEBT PAYMENTS **	ENTS ***												
FLB PAYMENT BNK NRE PYMT TJT DEBT PAY	1671. 939. 2609.	1671. 939. 2609.	1671. 939. 2609.	1671. 939. 2609.	1671. 939. 2609.	1671. 939. 2609.	1671. 939. 2609.	1671. 939. 2609.	1671. 939. 2609.	1671. 939. 2609.	1671. 939. 2609.	1671. 939. 2609.	20050. 11263. 31313.
SURP. OR DEF	18533.	14206.	14766.	12673.	7250.	9120.	10494.	12260.	13048.	12123.	-1162.	5357.	4196.
ACC. AO INT. Ao prin. Pay	00	00	00	00	00	00	00	00	00	00	0	10. 1162.	19. 1152.
*** AO LOAN BALANCÉ	S	4 †											
ยยัง AO 8AL ยังบั AO 8AL ยังบั CASH 8AL	0 0 19033.	0 0 14706.	0 0 15266.	0 0 13173.	0 0 7750.	0 0 9620.	0 0 10994.	0 12750.	0 0 13548 •	0 0 12623.	0 1162. 500.	1162. 0 4685.	0 0 76854

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COMPUTENCISTION AIDS AGRICULTURAL ECONOMICS PROGRAMI AGRICULTURAL INFORM MANAGEWIT RAD ESTRET Cost INDUCT         AGRICULTURAL ECONOMICS PROGRAMI RAD EFPANO NEW FRESTALL W 3 JAN FEB MAR APP MAY JUN JAN FEB MAR APP MAY JUN JAN FEB MAR APP MAY JUN JAN FEB MAR APP JUN JAN FEB MAR APP JUN JAN FEB MAR APP JUN JAN FEB MAR APP JUN JAN FEB JUN JAN FEB MAR APP JUN JAN FEB JUN JAN FEB MAR APP JUN JAN FEB JUN JAN FEB JUN JAN FEB JUN JAN FEB JUN JAN JAN JAN JAP JAP JAP JAN JAN JAN JAN JAN JAP JAP JAP JAP JAP JAP JAN JAN JAP JAP JAP JAP JAP JAP JAP JAP JAN JAN JAP JAP JAP JAP JAP JAP JAP JAP JAP JAP JAP JAP JAP JAP JAP JAP JAP JAP
CISION AIDS RM MANAGEWENT ION SERVICE F MINNESOTA JAN FEB M 4686, 10367, 16 6000, 5000, 16 11580, 11057, 10 16266, 26424, 27 10, 230, 230, 231, 187, 187, 187, 187, 187, 281, 27 232, 231, 231, 231, 231, 231, 231, 232, 231, 232, 232
CISION AIDS RM MANAGEHEN ION SERVICE NUNNESOTA JAN F 4686, 10 4686, 10 11580, 10 12666, 26 187, 26 187, 26 187, 18 187, 187, 18 187, 18, 18 187, 18, 18 187, 18, 18 187, 18, 18 187, 18 18, 18, 18
COMPUTER EXTENSION AGRI. EXTE UNIVERSITY UNIVERSITY UNIVERSION AGRI. EXTE UNIVERSION CORN INSTR INSTR INSTR INSTR INSTR INTL INCAL INFL SEED ACASH 0 SURP. OR D SURP.

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CGMPUTER DECISION AIDS EXTENSION FARM MANAGEMENT AGRIS EXTENSION SERVICE UNIVERSITY OF MINNESOTA	05 HENT CE	AGRIC PROJEC GRAD E 08-21-	ULTURAL E TED CASH XPAND NEW 79	RICULTURAL ECONOMICS PROGRAM JECTED CASH FLOW BUGGET D EXPAND NEW FREESTALL YR4 21-79	PROGRAM: ET L YR4							
JAN	FEB	MAR	APR	MAY	Nar	JUL	AUG	SEP	001	NON	DEC	TOTAL
18024. 13017. 31041.	23718. 13445. 37163.	20659. 13370. 34029.	24604. 13176. 37780.	25659. 12492. 38151.	23525. 12318. 35843.	27815. 11819. 39634.	31606. 12315. 43921.	35875. 12866. 48741.	40694. 12331. 53025.	42834. 11851. 54685.	32165. 11358. 43523.	18024. 150358. 168382.
CASH OUTFLOWS ***												
.006	900°	900.	-006	900	900.	900.	900	900.	400.	900	900	10400.
71.	.165 .161			396.	6 9 6 9	396.	401.	401	407.	407.	407.	4751.
0	•		•	0	0	0	0	0	201.		0	241.
0	0	998	1439.	0	0	0	0	0	0	0	0	2437.
0	0	1031.	2784.	1031.	0	0	0 (	0	723.	0	0	5568 <b>.</b>
0	0	0	170.	2394.	0	0	0	0	0	0	0	2564.
0	•	0	0	0	0	0	0	0	0	1104.	0	1164.
0	0	c	0	2051.	0	0	0	0	0	2051.	0	4101.
213.	219.	224.	227.	227.	227.	227.	230.	.230.	233.	233.	233.	2726.
182.	187.	192.	195.	195.	195.	195.	197.	197.	200.	200.	200.	2337.
13.	219.	224.	221.	227.	227.	227.	230.	230.	233.	233.	233.	2124.
i65.	375.	385.	390.	390.	390.	<b>3</b> 90	395.	395.	400.	400.	400.	4673.
0 <b>1.</b>	301.	301.	301.	601.	601.	601.	601.	601.	601.	902.	301.	6012.
	0	0	• •	1163.			2	0 0	1123.	<b>&gt;</b> <	9 0	2245
0,040			7 4 4	0 76 0	0 0 7 6 0	076		9	0 77.	ר ה אר ה אר		
250.	-050 -050	1 202	1250	1250	1250.	1250.	• 2000 t	1250	- 2007 -	-000-1	.503.	15200
0	5400.	0	0	0	)   	0	1	0	0	0	1	5400.
500.	500.	500.	500.	500.	-00¢	500.	500.	500.	500°	<b>•00</b> 5	500.	500.
975.	14156.	707.	9773.	12278.	5680.	5680.	5699.	5699.	7844.	9172.	5104.	A7639.
26066.	23007.	26952.	28007.	25873.	30163.	33954.	38222.	43042.	45181.	45512.	38418.	80743.
	1											•
PUNCHASES	•											
00	00	00	00	00	00	00	00	00	00	11000. 11000.	20	11000. 11000.
26066.	23007.	26952.	28007.	25873.	30163.	33954.	38222.	43942.	45181.	34512.	38418.	69743.
PAYMENTS												
1909. 939. 2848.	1909 <b>.</b> 939. 2848.	1909. 939. 2848.	1909. 939. 2848.	1909. 939. 2848.	1909. 939. 2848.	1909. 939. 2848.	1909. 939. 2848.	1909. 939. 2848.	1409. 939. 2848.	1909. 939. 2848.	1909. 939. 2848.	22909. 11263. 34172.
23218.	20159.	24104.	25159.	23025.	27315.	31106.	35375.	40194.	42334.	31665.	35571.	35571.
0 0	0	0	00	6	0	0 0	٥	0	0	0	0	0
•	>	0	>	5	Ð	Þ	5	Ð	•	5	D	Þ
O LUAN BALANCES												
0	0	0	0	0	0	0	0	сı	0	0	0	Ð
0 371d.	0 20659.	0 24604.	0 25654.	0 23525.	0 27815.	0 31606.	0 35875.	• + 0 6 9 4 • •	0 42834.	0 32155.	0 36071.	0 36071.

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COMPUTER DECISION AIDS EXTENSION FARM MANAGEMENT AGRI. EXTENSION SERVICE UNIVERSITY OF MINNESOTA	ISION AIC M MANAGE ON SERVIC MINNESOT	SS TENT A	AGRICUL PROJECTE GRAD EXP 0P-21-79	AGRICULTURAL ECONOMICS PROGRAM: Rojected Cash Flow Rudget Rad Erpand New Freestall YRS P-21-79	CONOMICS FLOW RUDG FREESTAL	PROGRAM: ET L YRS							
*** CASH INFLOWS **	0±0												
	NAL	FEB	MAR	APR	MAY	NNC	JUL	AUG	SEP	001	NON	DEC	TOTAL
BEG CASH BAL LVSTK MILK TOTAL INFLOW	36071. 11275. 47346.	39894. 14940. 54834.	38888. 15198. 54086.	44606. 15227. 59833.	47675. 14128. 61803.	47141. 13428. 60569.	52504. 13178. 65682.	57617. 12540. 70157.	60726. 13737. 74463.	64199. 13094. 77293.	65164. 13301. 78485.	55965. 12195. 68160.	36071. 162241. 198312.
*** CASH OUTFLUWS	LUWS ***												
1000 1 4000		000	6	000	000	000	000	000	000	000	000	000	09601
HIKED LABUR REPAIRS PURCH. FEED	313.	900. 313. 407.	900. 313. 407.	900 625 407	900- 625- 407-	900 625. 407.	407.	400. 625.	120	625 625	404 625 407	313.	10309. 6250. 4878.
PURCH. CORN	00	00	0	0 95.41	00	00	00	1365. 0	2199 <b>.</b>	2199 <b>.</b>	00	0	5764.
SEEU FERTILIZER		00	1031.	2784.	1031.	00	00	00	0	723.	00		5558.
CHEMICALS	00	00	00	170.	2394.	00	60	00	• •	00	1104.	ວເ	2504.
CRUP INSUR. MACH. HIKE	<b>.</b> .	0		00	2051.	00	00		00	00	2051.	00	4101.
<b>EREDING</b>	233.	233.	233.	233.	233.	233.	233.	233.	233.	233.	233.	233.	2799.
A MED.	200.	200.	200-	200.	200.	200.	200.	200-	200.	200.	200	200.	2394. 1400
LSA SUPPLIES I VSIK, MKIG,	• 0 0 •	400	-004	- 00+	400-	400.	400.	+00.	• 00 <del>•</del>	400.	400.	004	6 - 7 P •
GAS OIL DRY	301.	301.	301.	301.	601.	601.	601.	601.	601.	601	905°	301.	6612.
FARM TAXES	00	0744.0	0 C		1163.	00	0 0	00	00	0		00	
UTILITIES	368.	368	~ m (	368.	368	993	368.	368	368.	36.8	368.	358	4420
FAM. LIVING INC ~ SS TAX	1250. 0	1250.	•0<21 0	•0571 0	.0c21	• N C 7 T	• 057 I	•0c21	•0C2T	• nc 7 f	• 0 C 2 T	•0021	15000. 4750.
	500.	500. 13598.	500.	500. 9810.	500. 12315.	5717.	5717.	500. 7083.	500. 7916.	-005 9/61-	500. 9172.	5104.	-002 92932
•	42242.	41236.	46954.	50023.	48	54851.	59964.	63074.	66547.	67532.	69313.	63056.	105380.
*** CAPITAL PURCHASE	URCHA SE S	¢ ¢											
масн. Р∪КСН. 101. сар Р∪R	00	00	00	00	00	00	00	00	00	00	11000.	00	11000. 11600.
SURP. OR DEF	42242.	41236.	46954.	50023.	49488.	54851.	59964.	63074.	66547.	67532.	58313.	63056.	94380.
*** DEBT PAYM	PAYMENTS ***												
FLB PAYMENT BNK NRE PYMT TOT DEBT PAV	1909. 939. 2848.	1909. 939. 2848.	1909. 939. 2848.	1909. 939. 2848.	1909. 939. 2848.	1909. 939. 2848.	1909. 939. 2848.	1909. 939. 2848.	1909. 939. 2848.	1909. 939. 2848.	1909 <b>.</b> 939. 2848.	1909. 939. 2848.	22909. 11263. 34172.
SURP. OR DEF	39394.	38368.	44106.	47175.	46641.	52004.	57117.	60226.	63699.	64684.	55465.	60Z08.	60208.
ACC. AO INT. Ao Prin. Pay	00	00	00	00	60	00	0 0	<b>00</b>	0 <b>0</b>	00	00	00	00
*** AO LOAN BALANCE	S	• •											
626 AO 8AL 140 AO 4AL 140 CASH 8AL	0 0 39894	0 38888.	0 0 44606.	0 0 47674	0 0 47141.	0 0 52504.	0 0 57617.	0 0 60726+	0 0 64199.	0 0 65144.	0 0 \$59652	0 0 0708.	0 0 60708.