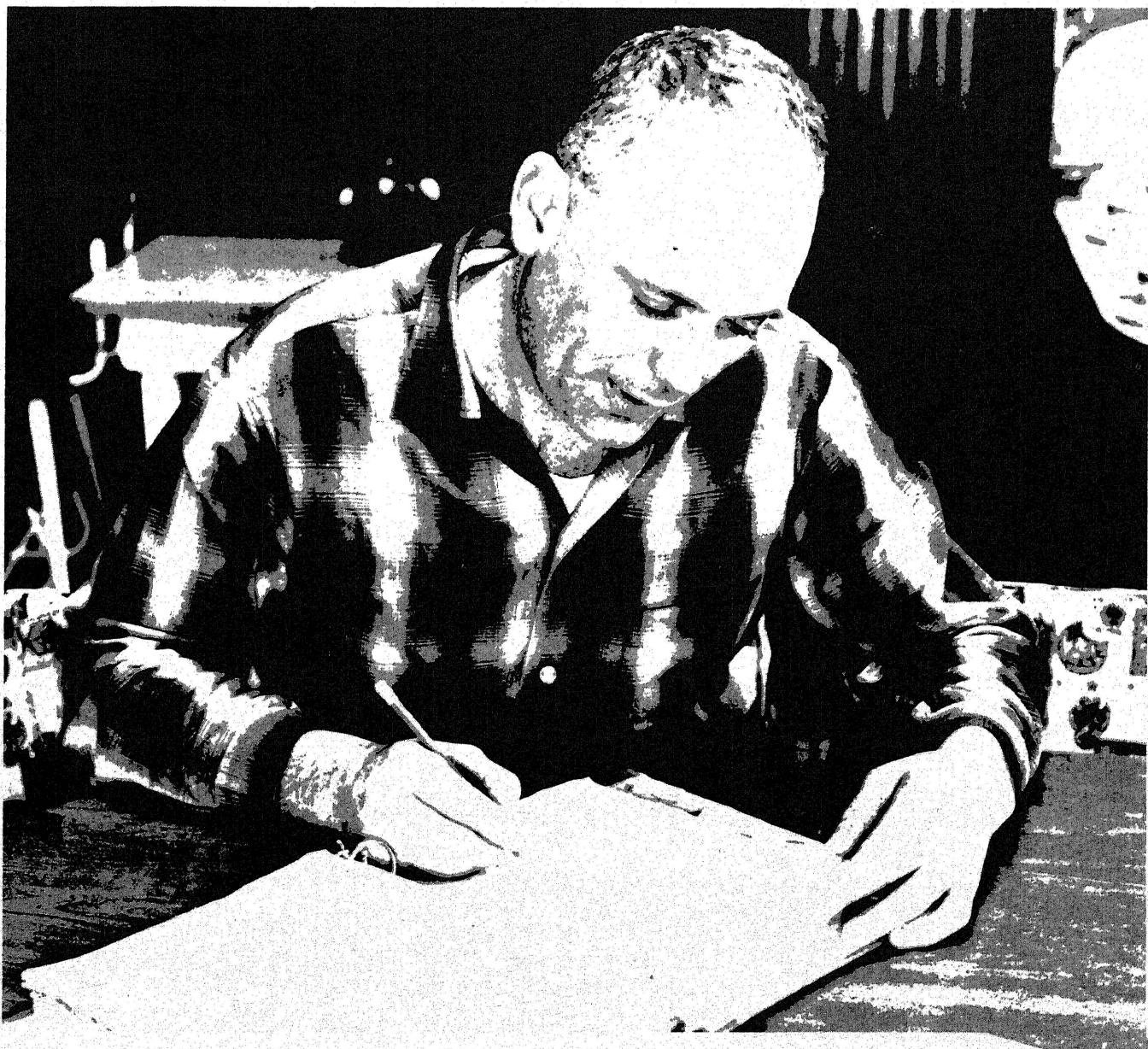


Missouri Mail-in Record Farms 1964 to 1973

Investments, Production, Costs and Returns

Agricultural Experiment Station
University of Missouri-Columbia

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MISSOURI MAIL-IN RECORD FARMS, 1964 to 1973
INVESTMENTS, PRODUCTION, COSTS AND RETURNS

SUMMARY

Farmers, farm management specialists, agri-business leaders and others concerned with agriculture are constantly faced with financial and production changes on commercial farms. The purpose of this study was to document the trend and magnitude of these changes through the use of Missouri Mail-In Record data.

As expected, the farms in 1973 compared to 1964 were larger in cropland acreage, capital invested and numbers of livestock. During this period, each farm added an average of 22 acres of cropland per year, increased capital managed by \$29,090 and added an average of three head of beef cows and five head of stockers and feeders each year. Hog production remained relatively constant, increasing less than one-half of a litter per farm per year. In addition to more cropland acres and larger numbers of livestock, a more intensive system of row crop farming, including more acres of corn, sorghum and soybeans, contributed to increasing the value of production. In 1964, 43 per cent of the cropland acres were planted to row crops as compared to 57 per cent in 1973.

Total value of production increased \$9,337 per year from 1964 to 1973. This increase was almost equally divided between crop and livestock production.

Four major production costs: fertilizer and lime, seed and crop supplies, machinery and equipment, and labor increased by \$25.80 per cropland acre from 1964 to 1973. This represented a 79 per cent increase for machinery and equipment, 58 per cent for labor, 52 per cent for seed and crop supplies and 33 per cent for fertilizer and lime.

Net farm income ranged from \$9,861 in 1964 to \$73,781 in 1973. The return to labor and management averaged \$15,081 from 1964 to 1973, \$10,151 from 1964 to 1968 and \$20,011 from 1969 to 1973. The average labor and management return per dollar of gross output averaged 23, 20 and 25 cents respectively for the three periods.

The ten year average return to capital and management as a per cent of total capital invested was 9.5 per cent. There was essentially no difference between the average percentage return to capital and management for the two five year periods, 1964 to 1968 and 1969 to 1973.

INTRODUCTION

The purpose of this study is to document economic and production adjustments and trends occurring on commercial Missouri farms. Data obtained from the Missouri Mail-In Record Program were used to trace these trends. Only farms with complete useable records for each year--1964 to 1973 inclusive--were included in the study. Therefore, results shown depict changes occurring on a given set of farms over a ten year period.

Data in Table 1 compares the sample farms with Economic Class I and II Missouri livestock farms from the 1964 and 1969 Census of Agriculture. In 1964 the average sample farm fell into Economic Class II (\$20,000 to \$39,999 product sales) with farm product sales of \$34,584. By 1969 the average sample farm had moved into the Economic Class I classification (\$40,000 or more product sales) with product sales of \$64,223.

In 1964, the average sample farm compared closely with the average Economic Class II Missouri livestock farm. The value of farm product sales was 27 percent higher on the sample farms. A larger hog enterprise and a more intensive row crop farming system primarily accounted for the difference. Also, the overall efficiency level may have been higher for the average sample farm than for the average Class II farm. This however, is inconclusive from the information given in Table 1.

The 1969 average sample farm had product sales of \$64,223 making it an Economic Class I farm. However, product sales were less than for the average Economic Class I Missouri livestock farm that had product sales of \$83,363. The sample farms had 75 fewer acres of cropland but followed a more intensive row crop farming system with 44 per cent of the cropland in row crops as compared to 34 per cent on the average Economic Class I farm. Crop yields in 1969 were lower on the sample farms. Also, the cattle enterprise was larger on the Economic Class I farms while the hog enterprise was larger on the sample farms.

TABLE 1
Comparison of the Sample Farms with Economic Class I and II
Livestock Farms, Missouri
1964 and 1969¹

	1964		1969	
	Average Class II Farm	Average Sample Farm	Average Class I Farm	Average Sample Farm
Acres of cropland	353	341	534	459
Value of land and buildings	\$89,848	\$76,913	\$196,568	\$156,089
Machinery investment	NA ²	NA ²	24,894	22,064
Value of farm products sold	\$27,274	\$34,584	\$ 83,363	\$ 64,223
Cattle and calves head	112	92	208	152
Cows and heifers (calved), head	36	39	55	51
Litters farrowed	34	53	28	52
Corn for grain, acres	74	85	111	139
Yield, bushels per acre	56	57	73	61
Sorghum for grain, acres	4	15	7	14
Yield, bushels per acre	53	63	71	69
Soybeans, acres	41	34	65	49
Yield, bushels per acre	20	20	28	25

¹Census data from the 1964 and 1969 Census of Agriculture, Vol. 1, Part 17, Missouri. Economic Class I farms had \$40,000 or more farm product sales. Economic Class II farms had \$20,000 to \$39,999 of farm product sales. Census livestock farms (other than dairy and poultry) are defined as farms with 50 per cent or more of the total value of all products sold during the year were from cattle, calves, hogs, sheep, goats, wool and mohair except for farms in the 17 western states, Louisiana, Florida, Hawaii, and Alaska that qualified as livestock ranches.

²Data not available.

Average annual data for the sample farms are shown in Table 2. Five and 10 year averages, average annual changes, and percentage changes are shown in Table 3.

When evaluating the economic trends, the unusually high farm commodity prices in 1973 and the inflationary influences, especially on real estate values, must be recognized. While it is easy to focus on the 1973 data, it is also necessary to consider the low income years in 1964 and 1970 if meaningful trend comparisons are to be made. 1970 was the year of the corn leaf blight epidemic and was also unfavorable for livestock producers.

TRENDS

Acres of Cropland

Average acres of cropland per farm increased from 341 in 1964 to 559 in 1973 for an average increase of 22 acres per year. This represented an increase of 64 per cent during the period and was relatively stable from year to year.

Capital Managed

Total capital managed per farm increased 242 per cent during the ten year period or an average of \$29,090 per year (Table 3). Investment in land and improvements represented 63 per cent of the total increase in capital managed. Investment in feed and crop supplies accounted for 15 per cent of the increase, 14 per cent was in livestock inventory increase, with machinery and equipment inventory increase picking up the remaining 8 per cent.

TABLE 2
Average Selected Management and Production Factors on 39 Farms
With Continuous Farm Records¹
1964 to 1973

	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
<u>Acres of Cropland</u>	341	343	365	395	422	459	478	500	541	559
<u>Investments:</u>										
Land & improvements	\$ 76,913	\$ 93,645	\$107,088	\$118,602	\$138,656	\$156,089	\$161,025	\$178,518	\$194,968	\$259,727
Livestock	23,073	25,858	31,183	31,283	31,769	36,097	38,145	41,251	48,358	65,539
Feed & crop supplies	9,199	11,700	16,443	17,258	17,657	19,282	18,734	20,031	37,805	52,457
Machinery & equipment	10,982	12,440	15,411	16,960	19,746	22,064	22,758	23,266	23,474	33,340
Total capital managed	\$120,167	\$143,643	\$170,125	\$184,103	\$207,828	\$233,532	\$240,662	\$263,066	\$304,605	\$411,063
∞ Total capital managed per man	\$ 68,667	\$ 77,645	\$ 90,013	\$ 95,390	\$108,244	\$123,562	\$122,787	\$124,088	\$136,594	\$191,192
Machinery and equipment investment per man	\$ 6,275	\$ 6,724	\$ 8,154	\$ 8,788	\$ 10,284	\$ 11,674	\$ 11,611	\$ 10,975	\$ 10,526	\$ 15,507
Man years of labor	1.75	1.85	1.89	1.93	1.92	1.89	1.96	2.12	2.23	2.15
<u>Production:</u>										
Value of crop production	\$ 18,073	\$ 23,784	\$ 24,503	\$ 27,022	\$ 31,816	\$ 25,043	\$ 25,709	\$ 38,011	\$ 38,952	\$ 65,360
Per acre of cropland	53	69	67	68	75	55	54	76	72	117
Value of livestock production	4,968	16,160	11,334	11,392	13,461	19,880	10,496	18,952	29,594	48,498
Total value of production	24,176	42,109	38,691	40,901	47,645	47,645	38,208	59,502	72,496	117,546
Total value of production per man	\$ 13,815	\$ 22,762	\$ 20,471	\$ 21,192	\$ 24,815	\$ 25,209	\$ 19,494	\$ 28,067	\$ 32,509	\$ 54,673
<u>Livestock:</u>										
No. of litters farrowed	53	53	58	55	57	52	63	59	56	57
No. of beef cows	39	38	41	43	46	51	54	56	61	69
No. of stockers and feeders	53	65	98	100	97	101	106	101	97	104

TABLE 2 (continued)

	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
Crops:										
All grain silage, acres	14	10	17	19	15	18	24	21	25	13
Corn, acres	85	102	116	140	152	139	148	151	128	130
yield, bushels per acre	57	84	69	78	88	61	51	83	84	88
Sorghum, acres	15	23	15	14	17	14	13	51	31	41
yield, bushels per acre	63	65	68	61	86	69	58	87	77	84
Soybeans, acres	34	46	58	76	75	49	71	85	106	137
yield, bushels per acre	20	29	26	24	33	25	24	28	30	26
Total row crops, acres	148	181	206	249	259	220	256	308	290	321
Costs (per acre of cropland):										
Fertilizer and lime	\$ 9.28	\$ 9.09	\$ 10.78	\$ 12.14	\$ 11.87	\$ 10.11	\$ 11.03	\$ 10.95	\$ 12.08	\$ 12.30
Seed and crop supplies	3.40	4.05	5.86	6.02	6.13	5.59	6.22	6.68	6.87	5.16
Machinery and equipment	16.41	20.47	21.39	21.49	22.18	22.74	23.97	23.48	23.89	29.32
Total labor	\$ 13.88	\$ 15.21	\$ 17.15	\$ 16.42	\$ 13.62	\$ 17.66	\$ 18.88	\$ 19.02	\$ 20.54	\$ 21.96
Cost and Return Summary:										
Gross output	\$ 34,584	\$ 53,989	\$ 52,590	\$ 50,809	\$ 58,970	\$ 64,223	\$ 55,759	\$ 71,759	\$ 85,386	\$ 129,107
Cash operating expenses	21,703	24,750	28,582	28,901	30,697	33,401	36,386	36,442	37,296	46,334
Machinery depreciation	2,132	2,706	3,561	3,988	4,052	4,590	4,803	5,044	6,010	6,969
Building depreciation	888	907	993	1,066	1,370	1,547	1,672	1,783	1,806	2,023
Net farm income ²	\$ 9,861	\$ 25,626	\$ 19,454	\$ 16,854	\$ 22,851	\$ 24,685	\$ 12,898	\$ 28,490	\$ 40,274	\$ 73,781
Adjusted net farm income ³	\$ 9,861	\$ 25,124	\$ 18,528	\$ 15,900	\$ 20,964	\$ 21,845	\$ 11,024	\$ 23,352	\$ 30,980	\$ 47,910
Return to labor & management	\$ 3,039	\$ 17,950	\$ 10,399	\$ 7,478	\$ 11,891	\$ 12,264	\$ -219	\$ 14,311	\$ 23,143	\$ 50,555
Percent return to capital and management	5.6	16.3	9.7	6.6	8.6	8.3	2.7	8.5	11.8	16.8

¹Source: Missouri Mail-In Record Program, Dept. of Agricultural Economics, University of Missouri-Columbia.

²Net farm income is the return to unpaid labor, all capital invested and management.

³Net farm income adjusted by the index of prices paid by farmers (1964 = 100).

TABLE 3
Selected Management and Production Factors on 39 Farms with Continuous Farm Records¹
Averages, Average Annual Change and Percent Change 1964 to 1973

	1964 - 1973			1964 - 1968			1969 - 1973		
	Average	Average Annual Change	Percent Change ²	Average	Average Annual Change	Percent Change ²	Average	Average Annual Change	Percent Change ²
<u>Acres of Cropland</u>	440	22	64	373	16	24	507	20	22
<u>Investments:</u>									
Land & improvements	\$148,523	\$ 18,281	238	\$106,981	\$ 12,349	80	\$190,065	\$ 20,728	68
Livestock	37,255	4,247	184	28,633	1,739	38	45,878	5,888	82
Feed & crop supplies	22,057	4,326	470	14,451	1,692	92	29,662	6,635	172
Machinery & equipment	20,044	2,236	204	15,108	1,753	80	24,980	2,255	51
Total capital managed	\$227,879	\$ 29,090	242	\$165,173	\$ 17,533	73	\$290,585	\$ 35,506	76
Total capital managed per man	\$113,818	\$ 12,252	178	\$ 87,992	\$ 7,915	58	\$139,645	\$ 13,526	55
Machinery & equipment investment per man	\$ 10,052	\$ 923	147	\$ 8,045	\$ 802	64	\$ 12,059	\$ 767	33
Man years of labor	1.97	---	23	1.87	---	10	2.07	---	14
<u>Production:</u>									
Value of crop production	\$ 31,837	\$ 4,729	262	\$ 25,040	\$ 2,749	76	\$ 38,615	\$ 8,063	161
Per acre of cropland	71	6	121	66	4	42	75	12	113
Value of livestock production	18,474	4,353	876	11,483	1,699	171	25,484	5,724	144
Total value of production	52,892	9,337	386	38,704	4,694	97	67,079	13,980	147
Total value of production per man	\$ 26,301	\$ 4,086	296	\$ 20,611	\$ 2,200	80	\$ 31,990	\$ 5,893	117
<u>Livestock:</u>									
No. of litters farrowed	56	.4	8	55	.8	8	57	1	10
No. of beef cows	50	3	77	41	1	18	58	4	35
No. of stockers and feeders	92	5	96	83	9	83	102	1	3

TABLE 3 (continued)

	1964 - 1973			1964 - 1968			1969 - 1973		
	Average	Average Annual Change	Percent Change ²	Average	Average Annual Change	Percent Change ²	Average	Average Annual Change	Percent Change ²
Crops:									
All grain silage, acres	18	-.1	-7	15	.2	7	20	-1	-28
Corn, acres	129	4	53	119	13	79	139	-2	-6
yield, bushels per acre	74	3	54	75	6	54	73	5	44
Sorghum, acres	23	3	173	17	.4	13	30	5	193
yield, bushels per acre	72	2	33	69	5	37	75	3	22
Soybeans, acres	74	10	303	58	8	121	90	18	180
yield, bushels per acre	26	.6	30	26	3	65	27	.2	4
Total row crops, acres	244	17	117	209	22	75	279	20	46
Costs (per acre of cropland)									
Fertilizer and lime	\$ 10.96	\$.30	33	\$ 10.63	\$.52	28	\$ 11.29	\$.44	22
Seed and crop supplies	5.60	.18	52	5.09	.55	80	6.10	-.08	-8
Machinery and equipment	22.53	1.29	79	20.39	1.15	35	24.68	1.32	29
Total labor	\$ 17.43	.81	58	\$ 15.26	\$ -.05	-2	\$ 19.61	.86	24
Cost and Return Summary:									
Gross output	\$65,718	\$9,452	273	\$50,188	\$4,877	71	\$81,247	\$12,977	101
Cash operating expenses	32,449	2,463	113	26,927	1,799	41	37,972	2,587	39
Machinery depreciation	4,386	484	227	3,288	384	90	5,483	476	52
Building depreciation	1,406	114	128	1,045	96	54	1,766	95	31
Net farm income ³	\$27,477	\$6,391	648	\$18,928	\$2,598	132	\$36,026	\$ 9,819	199
Return to labor & management	\$15,081	\$4,752	1564	\$10,151	\$1,770	291	\$20,011	\$7,658	312
Percent return to capital and management	9.5			9.4			9.6		

¹Source: Missouri Mail-In Record Program, Dept. of Agricultural Economics, University of Missouri-Columbia.

²Percent changes are positive changes (increases) unless indicated by a negative sign.

³Net farm income is the return to unpaid labor, all capital invested and management.

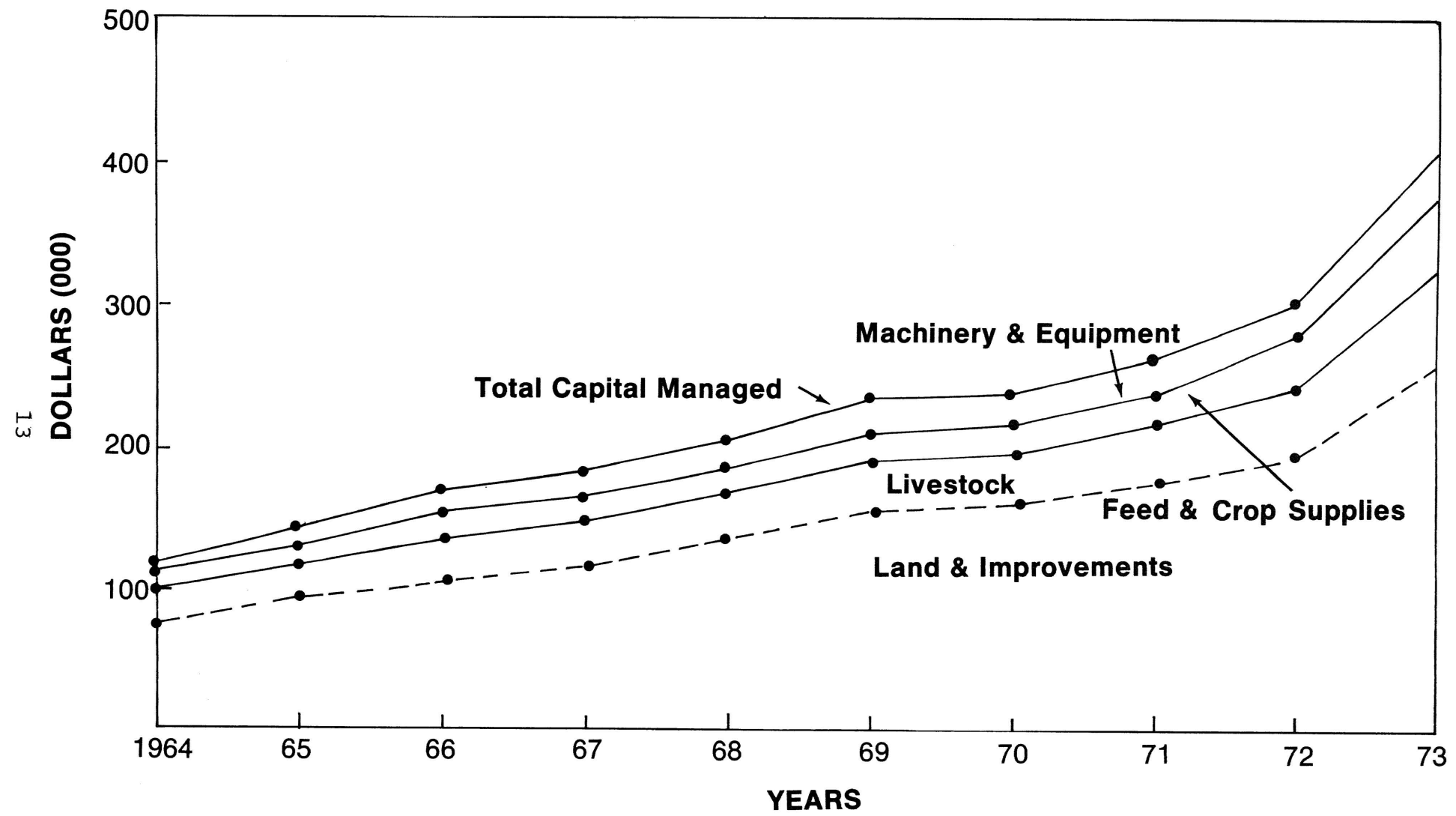
Land and improvements investment per farm increased by \$182,814 (238 per cent) from 1964 to 1973, while cropland acreage increased only 64 per cent. Thus a substantial part of the increased investment in land and improvements resulted from inflationary gains. Livestock and feed and crop supply investments increased 266 per cent from \$32,272 in 1964 to \$117,996 in 1973. The machinery and equipment investment of \$33,340 in 1973 was three times the \$10,982 investment in 1964--an increase of 204 per cent.

The magnitude of the components of total capital managed is shown in Figure 1. Total capital managed increased steadily from 1964 to 1969, leveled off between 1969 and 1970, and has been increasing at a much more rapid rate from 1970 to 1973. Land and improvements accounted for a fairly constant part of the total capital managed ranging between 63 and 67 per cent. Livestock, feed and crop supply investments represented between 24 and 29 per cent of the total. During this time machinery and equipment inventories ranged between 8 and 10 per cent of the total capital managed.

Total capital managed per man increased by 178 per cent from \$68,667 in 1964 to \$191,192 in 1973 or an average increase of \$12,252 per year. Machinery and equipment investment per man increased an average of \$923 per year from \$6,275 to \$15,507.

An interesting comparison is noted between total capital managed which increased 242 per cent and man years of labor which increased only 23 per cent from 1964 to 1973. This

FIGURE 1
Average Capital Managed Per Farm, 1964 to 1973



comparison shows that total capital managed per farm was increasing at a faster rate than man years of labor. Labor saving technology has been adopted as the farm business expanded. In this situation the business becomes more capital intensive and utilizes relatively less labor.

Value of Production

Total value of production included all crop production valued at annually standardized prices plus livestock returns above feed cost, plus custom work income and the value of timber products sold.

The average annual increase in total value of production per farm was \$9,337 for the period 1964 to 1973. From 1964 to 1968 this average annual increase was \$4,694 compared to \$13,980 from 1969 to 1973 (Table 3). These increases were caused by factors such as more intensive cropland farming, more acres per farm, larger volume of livestock per farm, and higher commodity prices. Each of these factors are discussed in more detail below.

Total value of production per man was four times greater in 1973 than in 1964, \$54,673 compared to \$13,815. Value of production per man in 1972 was 2.3 times greater than in 1964. The dramatic increase in the 1973 value of production was caused largely by higher commodity prices. Over time, increases shown in labor productivity as reflected in value of production per man have occurred not only because of price increases, but also because of increased capital invested per man.

Value of crop and livestock production increased an average of \$4,729 and \$4,353, respectively, per annum for the 10-year period. From 1964 to 1973 the value of livestock production increased 876 per cent. However, if 1964 is eliminated from the analysis, the value of both livestock and crop production increased at approximately the same rate.

The contribution of crops and livestock to total value of production varied from year as shown in Figure 2. Value of crop production ranged from a high of 75 per cent of the total in 1964 to a low of 53 per cent in 1969. Value of livestock production varied from a low of 21 per cent in 1964 to a high of 42 per cent in 1969. The major factor affecting these relationships is the relative level of livestock prices and crop prices. Crop prices were high compared to livestock prices in 1964 and vice versa in 1969.

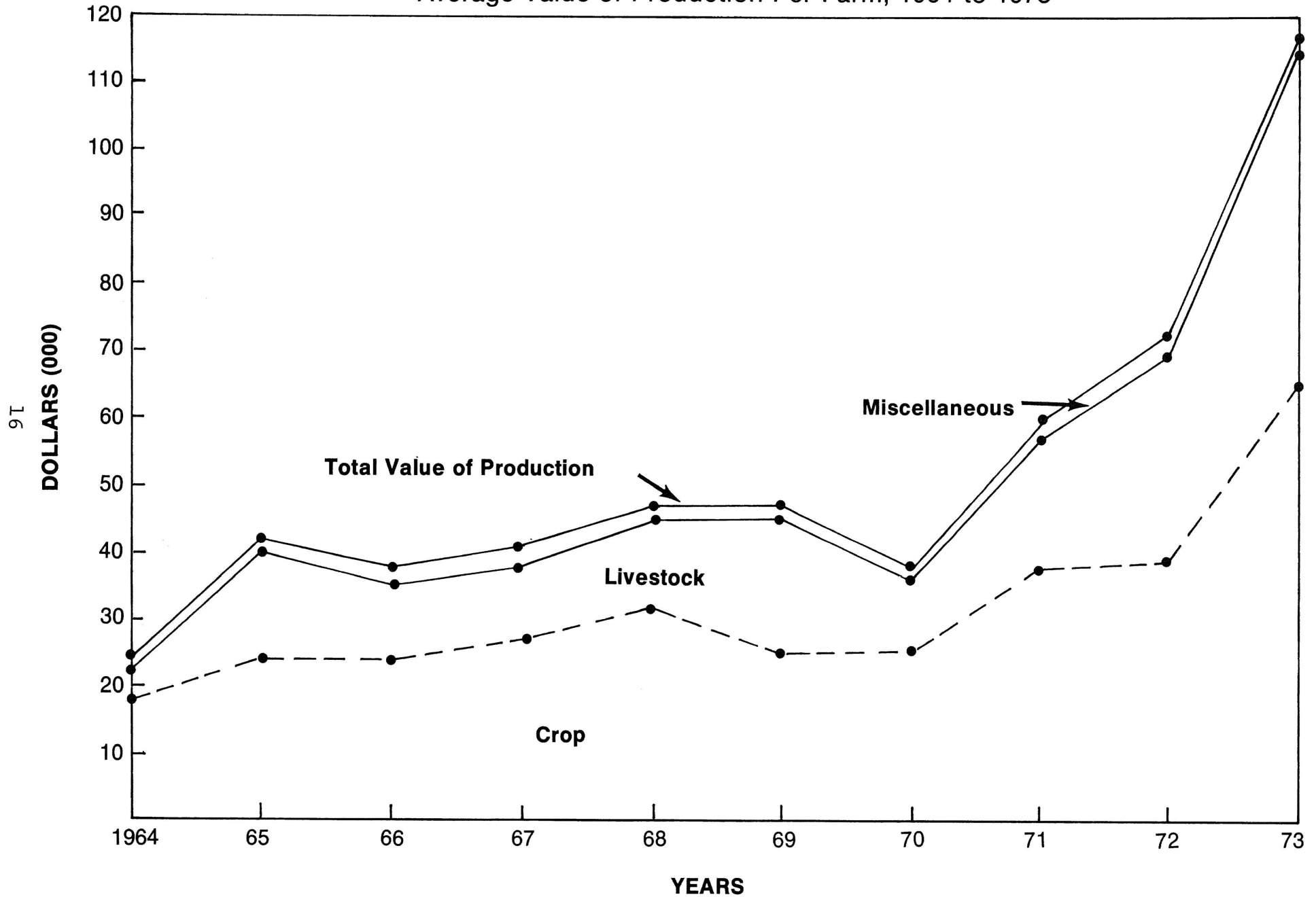
Livestock

Most of the increase in livestock numbers was in the beef cow and stocker and feeder enterprises. Beef cow numbers increased 77 per cent from 1964 to 1973 while the number of stockers and feeders increased 96 per cent. Average number of litters of pigs farrowed increased only 8 per cent during the same period, from 53 to 57 litters per farm.

The average number of litters farrowed per farm peaked in 1970 at 63 litters. Beef cow numbers increased steadily from 39 to 69 head, an average increase of 3 cows per farm per year with the biggest thrust coming after 1968. Stocker and feeder numbers increased an average of 5 head per year from 53 head in 1964 to 104 head in 1973 with the majority of this increase occurring prior to 1968.

FIGURE 2

Average Value of Production Per Farm, 1964 to 1973



When beef cattle numbers are compared on a head per acre of cropland basis, there was little change in the density of beef cows and stockers and feeders. The litters of pigs farrowed per acre of cropland decreased from .16 in 1964 to .10 in 1973.

Crops

Farms in this study intensified their row-crop land use program during the 10-year period. In 1964 row crops were planted on 43 per cent of the cropland compared to 57 per cent in 1973. Acres of row crops increased 117 per cent from 148 acres in 1964 to 321 acres in 1973, an average annual increase of 17 acres. This shift in land use occurred while total cropland acres increased only 64 per cent or an average of 22 acres per year. Acres of corn varied considerably from a low of 85 acres in 1964 to a high of 152 acres in 1968. By 1973, corn acreage had declined to 130 acres. Substantial increases in sorghum and soybean acreage offset the reduction in corn acreage. Sorghum acreage remained fairly constant from 1964 to 1970. However, considerably more acres were planted to sorghum during the 1971 to 1973 period. Soybean acreage increased at an annual rate of 10 acres per farm per year from 34 acres in 1964 to 137 acres in 1973--the major increase was after 1970. The 303 per cent increase in soybean acreage was the most dramatic change in land use revealed during the 10-year period of this study. Soybeans not only represented the greatest relative acreage increase, but also the greatest absolute acreage increase--an average of 103 acres per farm from 1964 to 1973.

Crop yields were erratic as a result of weather conditions and insect and disease infestations that occurred from year to year. Corn yields per acre varied from a low of 51 bushels in 1970 to a high of 88 bushels in 1968 and 1973. The corn leaf blight epidemic in 1970 was a major determinant of corn yields that year.

Soybean yields ranged from 20 to 33 bushels per acre. After a high of 33 bushels per acre in 1968, soybean yields have ranged between 24 to 30 bushels during the period 1969 to 1973.

Costs, Per Acre of Cropland

It is well known that farm operating costs have increased substantially during the ten years covered by this study.

Fertilizer and lime costs on the sample farms increased 33 per cent per acre of cropland from 1964 to 1973, costs for seed and crop supplies increased 52 per cent, machinery and equipment costs increased 79 per cent, and labor costs increased 58 per cent. The total annual increase for these four costs averaged \$2.58 per acre of cropland or an increase of \$25.80 per cropland acre from 1964 to 1973.

Changes in total cash operating expenses and machinery and building depreciation are discussed in the next section of this report.

The major impact of the inflationary pressures of the early 1970s, shortages of fuel and fertilizer and other related cost increases were not yet fully reflected in farm financial statements of 1973. Farm commodity prices increased more rapidly than farm operating costs which is common in the early part of an inflationary period (as in 1973). Cost increases shown here, value of production figures referred to previously and the following return analysis points this out. However, 1974 financial statements should show that operating costs increased rapidly while commodity prices remained steady or even declined.

Cost and Return Summary

Net farm income is the return for unpaid labor, all capital invested and management. It is calculated by subtracting cash operating expenses, and machinery and building depreciation from gross output.

Gross output includes total cash sales of products and services, less purchased livestock, plus the change in inventory values of grain and livestock, plus the value of farm products consumed. Gross output differs from total value of production which was discussed above in two ways: (1) actual prices received and the farmers' estimate of inventory prices are used to value all products and services; and (2) the cost of purchased feed is not deducted.

The sum of livestock expense including purchased feed, machinery and equipment, crop, labor, and miscellaneous expenses comprise cash operating expenses. Interest paid was not included.

Machinery and building depreciation data reflect the annual depreciation charges estimated by the farmers in this study.

The relationship of cash operating expenses, depreciation, the imputed charge for capital invested and the return to labor and management for the 10-year period is shown in Figure 3.

During the 10-year period machinery depreciation increased by 227 per cent, from \$2,132 per farm in 1964 to \$6,969 per farm in 1973. During the same years, building depreciation increased 128 per cent and cash operating expenses increased 113 per cent. Data in Table 2 shows that over the study period these cost items fluctuated less than gross output or net farm income.

Net farm income ranged from \$9,861 in 1964 to \$73,781 in 1973. This is a substantial change (648 per cent). However, if the 1973 income is evaluated in terms of constant 1964 dollars the increase is only 386 per cent. Any evaluation or projection of this trend in net farm income should be treated with caution. The change represented here deals with the two extremes for net farm income during the 10-year period. In 1964 net farm income was abnormally low and in 1973 it was abnormally high. The extreme fluctuations that occur from year to year are important.

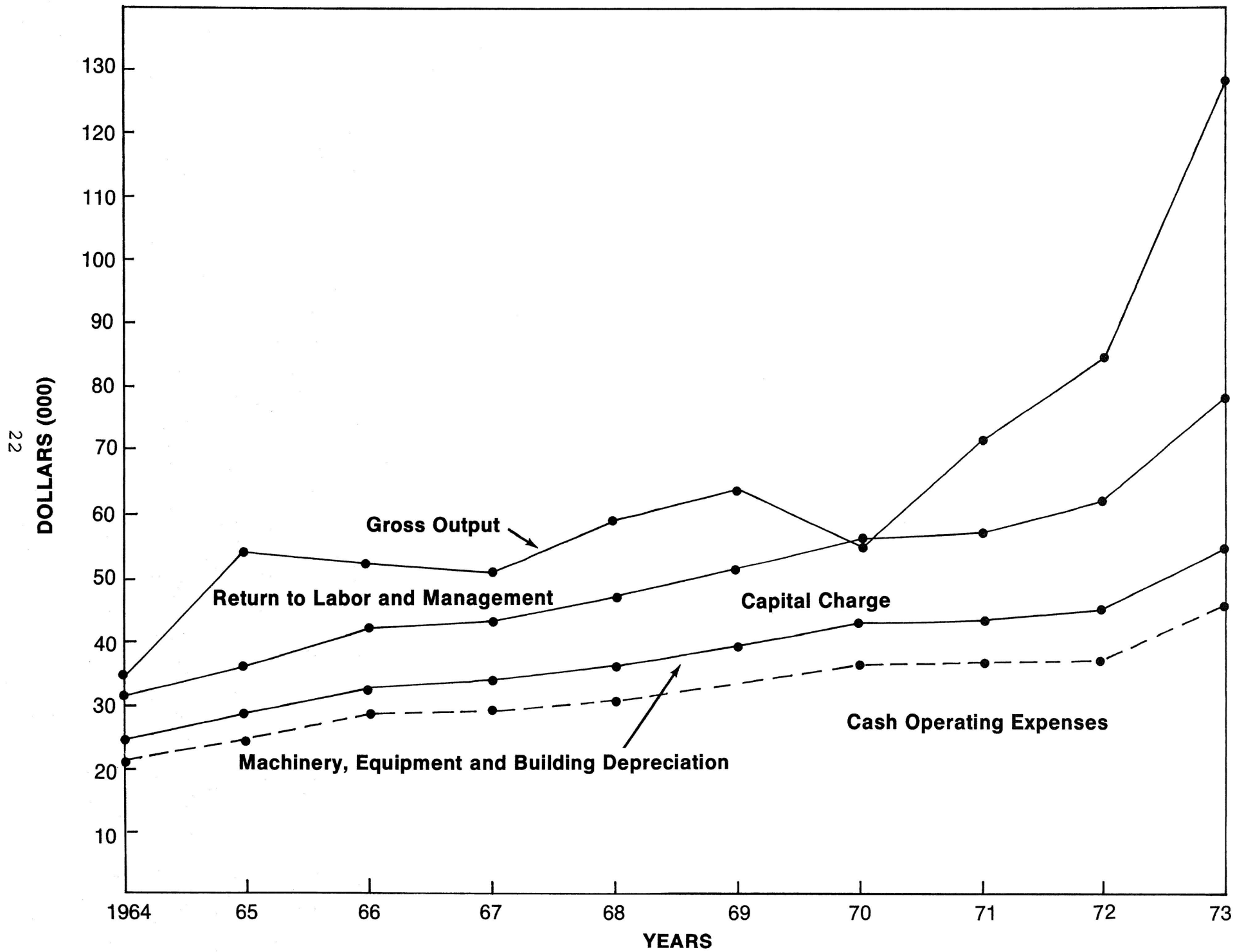
Although net farm income increased \$33,507 from 1972 to 1973, almost \$32,000 of the increase was caused by higher inventory values of livestock, feed and crop supplies. This

increase in inventory value represents net farm income that was not realized in cash during 1973. Thus, many farm families in this study had little or no increase in available cash in 1973 over 1972 for family living expenses and for debt servicing.

Perhaps a better picture of farm returns can be gained by studying the five and ten year average data presented in Table 3. If approximately a 5.5 per cent return on capital invested is deducted from net farm income, the residual return to labor and management averages \$15,081 for the period 1964 to 1973, \$10,151 for 1964 to 1968 and \$20,011 for 1969 to 1973. However, the return to labor and management per dollar of gross output was 23, 20 and 25 cents, respectively for the three periods. This comparison shows that the greater volume of business (gross output) per farm was the major reason for the higher labor and management return during the period 1969 to 1973 and not the margin of return per dollar of gross output.

Another measure of overall farm returns is the return to capital and management as a per cent of total capital invested. This ratio uses total capital invested as the common denominator for evaluating the returns. The return to capital and management is calculated by deducting an average charge for unpaid labor from net farm income.

FIGURE 3
Costs and Returns, Average Per Farm, 1964 to 1973



Return to capital and management as a per cent of total capital invested varied substantially from year to year during the 10-year period. However, an important relationship is shown in Table 3 when this return is averaged over a number of years. The 10-year average return was 9.5 per cent while the 1964 to 1968 return was 9.4 per cent and the 1969 to 1973 return was 9.6 per cent. Thus, the return to capital and management per dollar invested did not vary greatly when five year average returns were considered.