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CAPITAL INVESTMENT DECISIONS
ON POULTRY FARMS

by
Stewart E. Ackerman

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CAPITAL INVESTMENT DECISIONS ON POULTRY FARMS

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Introduction

Situation

The poultry industry in New York State has demonstrated a readiness to adopt new technology. The industry supplies less than 40 percent of the eggs consumed by people residing in the state, so firms in the business of producing and marketing eggs must be efficient and competitive. Efficiency is possible only with the addition of new capital. In order to understand the problems and opportunities of the industry, one needs to know the types of capital investment decisions made by poultrymen, the reasons for these decisions, and the methods used in evaluating capital decisions.

Investments of new capital may be made in response to a need to increase labor efficiency, reduce some costs, increase the volume of production, or to correct problems with materials handling, flock performance, or poultry and egg processing and marketing. There also appears to be a trend toward diversification of enterprises on poultry farms. The reasons for this apparent diversification needs to be understood.

There are indications from data on the returns to capital earned on poultry farms that some operators may be using more capital than can be effectively managed. Also, farms that add new enterprises may create a business with inefficiencies if adequate capital and/or management are unavailable, and this then prevents the achievement of optimum size for good returns.

The records of farms participating in the "Poultry Farm Business Summary" for the period 1970 through 1977, indicate that there has been a steady increase in the average capital investment (table 1).

Table 1. AVERAGE CAPITAL INVESTMENT 1970 TO 1977
New York Poultry Farm Business Summaries**

Year	Average Capital Investment	Year	Average Capital Investment
1970	\$114,000	1974	\$179,000
1971	120,000	1975	221,000
1972	127,000	1976	221,000
1973	149,000	1977	324,000

** From annual poultry farm business summaries published by C. A. Bratton, professor of farm management and G. H. Thacker, professor of poultry science.

* C. A. Bratton, professor of farm management and chairperson of the College Interdepartmental Poultry Committee at Cornell University provided helpful suggestions in planning the study and reviewed the manuscript for this report.

Table 2. RATE OF RETURN ON INVESTMENTS 1970 TO 1977
New York Poultry Farm Business Summaries

Year	Poultry Only	Poultry and Grain	All Farms
1970	10.0%	13.6%	11.8%
1971	1.2	6.8	4.0
1972	0	9.5	4.8
1973	13.9	24.7	19.3
1974	1.2	16.8	9.0
1975	4.3	11.2	7.8
1976	8.5	7.0	7.8
1977	15.9	4.0	9.5
8-Year Average	6.9%	11.7%	9.2%

The rate of return on capital has been highly variable in the eight-year period, 1970 through 1977 (table 2). This situation possibly has had an influence on the size of the market egg industry in the area relative to the market potential. Poultry farm operators may be investing their labor and capital in other kinds of enterprises because of the highly variable returns to capital in poultry.

The challenge to Cooperative Extension is to assist those in the business of producing and marketing poultry and eggs in the planning of capital investments. Greater use needs to be made of all the business planning tools. Careful planning of marketing and production is essential to the sound development of the poultry industry in the State.

Capital Investment Study

A survey was made of the capital investment decisions made by Western New York poultry farmers during the period 1970 through 1977. The study involved personal interviews with farm operators using a questionnaire to record the responses. The aim was to interview as many as possible of the 91 commercial poultry flock operators in the twelve county Western New York area. Interviews were obtained from 77 farm operators. Only farms with poultry flocks of 1,000 or more birds were included in the study. The farms surveyed included 37 egg producers, 20 started pullet growers, 15 farms with both laying and started pullet flocks and five meat bird flocks. The study was started in 1977 and completed in early 1978.

While farms that had discontinued poultry enterprises prior to the time of the study were not interviewed, information maintained by the author on all poultry farms in the region was used in this report. The information on farms going out of poultry farming is an important part of the total study of capital investment decisions. In addition, information on the 14 farms not surveyed is included in the section "Description of Farms". Data were not available on farms that discontinued poultry operations in Erie and Chautauqua Counties prior to 1977, Allegany County prior to 1974 and Niagara County before 1973 since the author was not working in those counties prior to those dates.

Information was obtained on the purpose for which capital was invested, the amount of capital involved, and the date or dates the investments were made.

In addition, information was obtained on factors influencing capital investment decisions, the resources used, and the evaluation process employed when making the decisions on new capital investments. Finally, the survey provided information on alternative investments considered by those responding as well as the level of satisfaction felt concerning the capital decisions.

Purpose of Study

The primary purposes of this study were: to identify some of the problems and opportunities faced by those involved in poultry and egg production and marketing; to determine the major changes or directions in which the industry may be moving; and to determine areas of work emphasis for Cooperative Extension.

A secondary purpose of the study was to gain a better understanding of the organizational structure and characteristics of the poultry industry in the region. There appears to be a major shift toward diversification of enterprises on farms that were formerly predominantly poultry. This diversification has included non-poultry enterprises as well as enterprises that have been built into the poultry and egg businesses on farms. This study was designed to help describe these characteristics.

Description of Farms Studied

The poultry industry in the 12 county region of Western New York included 91 farms with commercial poultry enterprises. A breakdown of the types of enterprises on these farms is shown in table 3.

Table 3. CHARACTERISTICS OF THE WESTERN NEW YORK POULTRY FARMS*

Farm Characteristics	All Farms**	Farms Surveyed	Percent Surveyed
<u>Kinds of Poultry:</u>			
Layers only	45	37	82
Pullets only	23	20	87
Layers and pullets	17	15	88
Meat birds	6	5	83
Totals	91	77	85
<u>Facilities:</u>			
Egg processing	34	31	91
Meat processing	6	5	83
Hatchery	3	3	100
Feed milling	26	19	73
Farm market	7	6	86
<u>Other Enterprises:</u>			
Grain production	37	30	81
Dairy	6	5	83
Hogs	9	7	78
Fruit	11	11	100
Vegetables	7	7	100
Miscellaneous	6	6	100
<u>Other:</u>			
Off farm employment	12	8	67
Partnerships	33	31	94

* Farm records of the area poultry specialist.

** Information on the 14 farms not interviewed is included in "All Farms".

There were 45 farms with layers as the only type of poultry, 23 farms with pullets as the only type of poultry, and 17 farms with both layers and pullets. Another six farms had meat type poultry. The meat bird farms included one who raised only turkeys, one who raised only broilers, and four farmers who raised turkeys and broilers or roasters. One farm raised and processed geese.

The diversification of enterprises on poultry farms also can be observed in table 3. There were 37 farms that grew grains, 26 farms milled feeds for poultry, 31 farms had other non-poultry enterprises. Eight farms had two enterprises in addition to poultry, two farms had three additional agricultural enterprises and one farm had as many as four non-poultry enterprises. There were 12 farmers who had off-farm employment.

Another major poultry related enterprise was the processing of farm produced eggs. A total of 34 farms processed at least a major portion of their own production. There were 33 farms that were managed by two or more persons (31 were surveyed). Some of these were formal partnerships or family corporations, while others were informal working arrangements.

Types of Capital Investments Reported

A total of 77 farms were surveyed concerning their capital investment decisions. Of this number, 48 or 62 percent made new capital investments. Eight of these farms (five layer, two pullet, and one layer and pullet) purchased farmland as well as new facilities. Five of these land purchases were for poultry enterprises and three were purchased for livestock and grain production. While the investments in farms represent substantial amounts of money, they cannot be regarded as specifically new capital in the poultry industry. A summary of capital investments made in the eight year period is presented in table 4.

Table 4. TYPES OF NEW CAPITAL INVESTMENTS 1970 TO 1977
77 Western New York Poultry Farms

Types of Investments	Farms Surveyed	Farms Investing New Capital		New Capital Investment Per Farm
		Number	%	
Total all farms	77	48	62	
Layer facilities	52	15	29	\$213,000
Pullet facilities	35	6	17	44,800
Egg processing	31	10	32	21,100
Farm markets	6	4	67	14,170
Meat bird facilities	5	0	0	--
Meat bird processing	5	5	100	13,600
Feed milling	19	14	74	57,500
Grain	30	12	40	118,750
Dairy	5	4	80	83,000
Hogs and other livestock	9	6	67	
Fruit and plants	11	5	45	34,000
Vegetables	7	0	0	--

Egg Production

There were 15 of the 77 farms surveyed that invested new capital on laying flock facilities. Two of these included the purchase of new farms for egg production. In the eight year period, six additional farms were purchased for use in egg production. While the six farms purchased were not new capital for facilities, they were substantial investments for the purpose of egg production. Excluding the farms purchased, there was a total facility capacity increase of 727,000 laying hens in the region. The capacity on the six farms purchased for egg production was 104,000 hens.

The total new capital invested for market egg production was about \$3.6 million. This is about \$4.90 per bird capacity. The value of this statistic is limited in view of the large increase in poultry housing costs over the eight year period. The data suggests a cost increase of at least \$3.00 per hen for layer housing between 1970 and the end of 1977.

Of the 56 farms that discontinued market egg production in the period of the study, 48 farms left the business between January 1, 1970 and the end of 1973. The total layer capacity on these farms was 281,300 birds. The average size of these flocks was 5,860 layers.

In the four year period between January 1, 1974 and December 31, 1977, there were only eight farms that discontinued egg production operations. These farms had capacities of 99,500 layers for an average size flock of 12,438 layers. While the number of farms leaving the industry was substantially smaller, the average flock size was over twice as large. This increase in flock size reflects a gradual increase in flock size for all farms in the eight year period from 1970 through 1977.

There were six farms that reported investments of new capital for the purpose of growing started pullets and three farms were purchased for their pullet growing facilities. The total capacity of pullet housing built was about 150,000 birds and of purchased farms was 64,000 birds. The new capital invested in pullet housing was about \$3 million or \$2.10 per bird.

In the period of the study, nine farms discontinued pullet growing operations with a total housing capacity of 67,000 birds. Seven farms went out of pullet growing between the period of January 1970 and the end of 1973 with 46,000 pullet capacity. In the next four years, two farms went out of the pullet business with a capacity 21,000 birds.

Investments in poultry housing, whether for market egg production or started pullets, were made in six of the eight years in the study period, with the exceptions being 1974 and 1975. The largest number of new poultry housing investments occurred in 1970. The period in which farms were purchased for poultry purposes occurred between 1973 and the end of 1977.

Egg Processing and Marketing

Egg processing and marketing is widely practiced on farms. In fact, many farms process eggs for the purpose of gaining better control over their grade yield as well as the marketing of undergrades, jumbo and small sizes, at premium prices.

There were 14 farms that built or expanded egg processing and farm marketing facilities. The total capital represented was \$211,000 for egg processing plant and equipment and \$65,000 for new or expanded egg marketing facilities. Special purpose farm markets were built by four farm operators. Each of these were built between 1974 and 1977, reflecting growing interest in obtaining a larger margin for at least a portion of the eggs produced.

Two farms reported selling between 20 and 30 percent of their egg production through their farm markets. While every farm manager may not be successful in direct marketing, there appears to be direct marketing opportunities for more egg producers. The potential for farmers' markets in the region is not being fully utilized.

On-Farm Feed Milling

The milling of poultry feeds on farms has continued to be an important part of many poultry farm operations in Western New York. There were 19 farms in the region that reported milling feeds with farmer owned mills. Several others employed mobile mills. The cost advantages of on-farm milling, while less than they once were, are still enough to attract investments by some poultrymen. Quality control with farm milling is a serious problem and it has a cost which is often overlooked.

There were 14 farms or 20 percent of those surveyed that purchased feed milling equipment in the period of the study. Usually, the use of farm milling has been accompanied by an expansion in grain production. Two farms, however, purchased feed milling equipment with no grain production. Another two poultry farms produce a substantial acreage of grain, but have not purchased feed milling equipment. One reason for some farms not investing in feed milling is the limited management available for this enterprise.

The capital invested in feed milling equipment in the period varied widely. It was influenced by the amount of grain handling and storage facilities already owned. This investment was found to range from \$3,000 to \$5,000 on farms purchasing mills only up to investments of over \$50,000 on farms having to purchase grain and feed handling and storage equipment. Due to the large difference in volume of grains and feeds handled and the amount of equipment in use before new systems were purchased, it is not possible to make any evaluations on these investments.

Meat Bird Processing

Poultry processing on the farms surveyed in Western New York was limited to five firms for the period of the study. Each of these processed turkeys, while four of them processed other types of birds including roosters and geese. Processing of poultry in small plants has a limited potential for growth due to federal inspection and operation restrictions and the intense price competition for other than fresh dressed poultry and turkeys.

Market outlets for the production of these plants was reported to be greater than the combined capacity could supply. This capacity, in turn, was purposely restricted to avoid the necessity of providing continuous in-plant inspection during processing operations. One plant, however, did maintain a continuous inspection service.

During the period of the study, five of the firms made new capital investments to meet new plant design specifications developed by the United States Department of Agriculture. The total capital represented by this upgrading work was \$70,000.

Grain Production

Next to the investments made for layer facilities, new capital for grain production was the highest based on the average investment per farm--\$213,000 vs. \$118,750 per farm. Twelve farms invested capital for grain production. These investments were made throughout the eight year period of the study.

Livestock and Dairy

Livestock and/or dairy enterprises in combination with poultry were found on 14 of the farms studied. Of this number, 10 reported capital expenditures in dairy and/or livestock enterprises during the period of the study or 59 percent of those with dairy and/or livestock. The total capital amounted to \$830,000. Three farms purchased other farms for the purpose of livestock production.

Fruit and Plants Investments

The survey revealed that an additional five farms made investments in vineyards, bedding plants and apple enterprises. The total capital invested in these enterprises was approximately \$170,000.

Farms Making No Capital Outlays

There were 29 farms or 38 percent of the total that reported no capital investments in the eight year period of the study. An attempt was made to determine the reasons for the absence of capital investments. There were three farms which had made very substantial capital commitments just prior to the period of the study. Nine farms, or nearly one-third of those reporting no investments, cited retirement or age as the reason for not investing in new capital. Another five farms had off-farm employment and on six farms, poultry was of minor importance to the total farm business. No information was obtained on the remaining six farms.

Factors Influencing Capital Investment Decisions

The farms surveyed were asked to indicate the factors that influenced their decisions regarding capital investments. Nearly all of the farm operators reported that profit potential was an important consideration. Closely related to this was a need to increase income. This information is summarized in table 5.

Table 5. FACTORS INFLUENCING CAPITAL INVESTMENT DECISIONS
77 Western New York Poultry Farms, 1970 to 1977

Decisions	Farms Investing In:		Farms Decreasing Poultry But:		Totals
	Poultry and Other Enterprises	Other Enterprises Only	Not Investing in Other Enterprises	Increasing Other Enterprises	
	- number reporting -				
Profit potential	34	7		3	44
Reduce risk	1		1	2	4
Available credit					0
Cost reduction	15	2			17
Increase income	16	7		6	29
Add partners	5	3	1	1	10
Reduce tax					0
Knowledge	1				1
New challenge	5				5
Zoning laws					0
EPA regulations	6				6
Family opinions	4	1		1	6
Personal likes	11	3		2	16
Retirement			7		7
Other (fire)	1				1

Farms Reduced or Discontinued

Of the six farms that reduced the size of their poultry enterprises while increasing non-poultry activities, three farms said the reason for the shift was to increase income, two farms claimed the need to reduce risk and three farms reported a personal preference for the non-poultry enterprises in which they invested. The number of firms expressing a preference for non-poultry enterprises was probably too small to indicate any major lack of confidence in poultry enterprises. Seven farms reduced their poultry operations in the period and reported retirement as the reason. Two other farms made no changes and reported retirement plans as the reason.

Cost Reduction

The need to reduce cost was reported by 17 of the farms as the reason for the investments made. All farms that invested in feed mills reported this as a reason. In addition, farms that built new egg processing plants and remodeled poultry housing reported cost reduction as a reason.

Add Partners

There were 10 farms, or 21 percent of those reporting capital investments, that reported the addition of a partner as the reason for investments. This may be an important indication of the future growth of the poultry industry. It is usually the most effective means of bringing more management into a business. Personal likes as a reason for investments were reported by 16 farmers.

Alternatives Considered

Of 43 farms that made capital investments during the period studied, seven have considered or were considering additional poultry expansion and six considered or were actually planning on discontinuing poultry enterprises. The rest had or were considering no alternatives.

Methods or Resources Used in Making Decisions

On the subject of the evaluation process used in making decisions, 36 farms making investments estimated the total capital cost and 28 farms prepared a budget of potential costs and returns. About a half of the farms making investments actually got bids on costs and tried to determine the amount of credit they could obtain. About a half of the farms making investments had no problem getting all the credit they needed and made no effort to shop or get bids on the items to be purchased.

Table 6. METHODS OR RESOURCES USED IN MAKING DECISIONS ABOUT CHANGES
77 Western New York Poultry Farms, 1970 to 1977

Resources	Farms Investing In:		Farms Decreasing	Totals
	Poultry	Other En- terprises	Poultry and Increasing Other Enterprises	
<u>Business Method Used:</u>				
Estimate total capital	29	5	2	36
Budget cost & return	22	4	2	28
Get bids	14	2	1	17
Check credit available	19	3	1	23
Check cash flow	14	4	2	20
<u>Consulted the following:</u>				
Credit representative	24	4	2	30
Industry fieldman	22	5		27
Family members	23	4	1	28
Other poultrymen	21	2		23
Extension staff	18	5	3	26
Private consultant	3			3
Commercial representative	19	4	2	25
<u>Visited Other Operations:</u>				
In New York	23	4	3	30
Other states	6	1	1	8

Resources Influencing Decisions on Capital Investments

The resources used most frequently in evaluating a capital investment included a credit representative, an industry fieldman, family members, other poultrymen and Extension staff. Only three farms reported the use of a private consultant. It is apparent from these data that professional assistance in business planning is readily available to the poultry industry from Cooperative Extension, Cornell University and the representatives of commercial firms.

Visits to Other Farms

Nearly all farms studied reported visiting other farms in evaluating a capital investment. The exchange of ideas and information, in fact, is a healthy element in the industry. When poultrymen communicate and learn from others, a more progressive industry will result.

Satisfactions With Capital Investments

Thirty-nine of the 48 who made capital investments responded to the question on the level of their satisfaction with the specific capital investments and their poultry enterprise in general. Twenty-seven of these were well satisfied with the specific investments made, but four of these farms were dissatisfied with the poultry industry. This suggests a high level of satisfaction with capital decisions as well as satisfaction with the poultry business as a means of achieving personal and family goals. Twelve farms expressed mild to serious dissatisfaction with both the specific investments made and their poultry enterprise.

Table 7. LEVELS OF SATISFACTION WITH CAPITAL INVESTMENTS
77 Western New York Poultry Farms, 1970 to 1977

Type of Investment	Level of Satisfaction			Changes Planned
	High	Medium	Low	
Egg production	12	1	4	Replace cages - 5 Discontinue business - 3 Expand production - 4 New business - 1 Discontinue contracts - 2 No plans - 2
Pullet production	3	1	4	Discontinue - 1 Expand - 1 Sell farm - 1 No plans - 5
Egg processing	4		3	Discontinue processing - 2 No plans - 5
Grain production	5			No plans - 3 Expand - 2
Feed mill	13			No plans - 9 Expand - 3 Discontinue poultry - 1
Dairy & livestock	7			No plans - 6 Expand - 1

Summary of Findings

Of the farms studied, 20 percent invested in egg production facilities; 8 percent invested in facilities for growing replacement pullets, and 18 percent invested in egg processing and marketing facilities. The percent of farms investing in facilities for all poultry related enterprises including feed milling was 48 percent. There were 28 percent of the farms studied that invested in non-poultry enterprises, but only 11 percent of these made no poultry capital investments.

These data suggest that there are many people who have found a personal satisfaction and possibly an acceptable profit from the poultry business. They have expressed this satisfaction through the continued investment of new capital.

There is a need, however, for better business performance studies as a basis for any decisions involving the investment of new capital. It is only by carefully evaluating the past performance of all aspects of a business that sound decisions can be made. Areas of a business that have not returned satisfactory profits possibly should be phased out or modified to improve their profitability. These decisions only can be made when good records are maintained and they are evaluated on a regular basis.

Flock Size

A tabulation of flock sizes reveals that 24 percent of the farms had flocks of over 30,000 layer or pullet growing capacity. Further, 53 percent of the farms had flock sizes for layers and/or pullets of between 10,000 and 30,000 birds. Data on pullet capacity were the number of birds that could be grown to maturity in one batch if all housing was full. The average flock size likely will continue to increase as poultrymen take advantage of new technology to increase labor and capital efficiency, reduce costs, and increase farm income.

The purchase of farms for the purpose of entry or expansion of poultry enterprises is noteworthy. Eight of the 11 poultry farms purchased were surveyed. Seven of the eight purchases occurred between 1973 and 1978. However, between 1970 and the end of 1973, there were four farms purchased for their poultry enterprises but three have since gone out of business. There were three farms purchased for grain and/or livestock enterprises.

Business Organization

The continued growth in multi-entrepreneur businesses is significant. Of 77 farms surveyed, there were 21 farms with two or more partners. Seven of these partnerships were formed, or new partners taken into the business since 1970.

The influence of partnerships on the continuity of a business is impressive. Of the 59 farms discontinuing poultry enterprises between 1970 and 1977, only nine were partnerships. However, six of the partnerships were still in operation at the time of the survey but had placed emphasis on non-poultry enterprises. These data point to the value of partnerships in perpetuating a farm business.

Investment Incentive

Strong interest in the poultry industry as a means of achieving personal and family goals is suggested from the study. Of the 36 farms that invested capital in poultry and poultry related enterprises during the period of the study, two farms invested over \$500,000 and 12 farms invested between \$50,000 and \$500,000. At the same time, six farms in the study invested between \$50,000 and \$500,000 in non-poultry related enterprises. These data suggest that dairy, livestock and grain production, the non-poultry related enterprises, were no more attractive than poultry enterprises to the farms surveyed.

Production and Processing and Marketing Problems

Many of the investments of new capital were made to reduce or solve problems with poultry and egg production/processing and marketing. Changes in federal regulations on the design and operation of poultry processing plants caused each of the five processors surveyed to make major investments in plant.

Improved, higher speed, egg processing machinery was one of the factors in addition to the profit motive that influenced eight poultrymen to invest in egg processing plant and/or equipment. The opportunity cost in this and other instances was, I'm sure, a major influence on new capital investments.

Other examples of capital investments that were strongly influenced by technology that offered opportunities to reduce problems with materials handling, poultry house environment control, pollution control, labor and capital efficiency and cost were the 16 high-rise houses built in the period of the study, the 14 feed mills purchased, and the four farms that converted floor housing to cages.

Diversification

The continued diversification of enterprises on farms with poultry operations was apparent. While 24 farms with poultry enterprises invested only in poultry facilities, another 22 farms invested in enterprises not directly related to the poultry business. These non-poultry investments included dairy, livestock and crops, including grains, bedding plants and fruit.

There was no apparent difference in the size of investments in poultry and non-poultry enterprises. For farms investing over \$50,000, ten invested in poultry enterprises, six invested in non-poultry and poultry facilities and other capital items, and three invested in non-poultry enterprises. These three farms investing only in non-poultry enterprises were planning to discontinue poultry operations. Six of the ten farms investing only in poultry had major non-poultry enterprises.

Implications

Number and Combinations of Enterprises

The expansion of farming operations by adding more enterprises is understandable, but there are hazards. There are several reasons for the increase in the number of enterprises on individual farms. One is that incomes from poultry and eggs fluctuate widely due to price changes. Farm operators attempt to even out the cash flow by the addition of non-poultry enterprises.

A second reason reported for the addition of enterprises on poultry farms is to increase returns from some resources. The addition of grain production and feed milling were reported to have been made because of the availability of land and manure. The addition of hogs was reported to have been made to increase the return from grain grown. Others have reported the growing of pullets to utilize labor in off seasons.

Three problems may arise with the expansion of the number of enterprises. First is the accuracy of judgments about the potential profits from the enterprises added. Feeding grains to hogs rather than selling the grain as a cash crop may not be a sound judgment. The hog market, like that for eggs, fluctuates widely. Further, the investment required for feeding hogs probably would not warrant a year to year judgment whether to feed a grain crop to hogs or sell it for cash.

A second problem created when enterprises are added to a full-time poultry farm is the management load added. Unless the management ability is available and underemployed on a farm, adding enterprises may tax the management resource to the point where more mistakes are made and losses are incurred. Farm operators need to evaluate their businesses carefully in order to see if weakness exists.

A third concern for farms that add enterprises is the lowering of capital reserves and the potential to borrow. Large amounts of capital are required to build efficient size units for most farm enterprises. Securing adequate capital to build an efficient unit for one enterprise can be difficult without trying to build efficient units for two or more enterprises.

An evaluation of business performance factors should indicate problems in the area of efficiency such as hens or acres per man. Weaknesses in operating efficiency are a continual problem as new technology alters the optimum scale of farming operations. Failure to keep up with optimum efficiency due to limited capital can reduce profits.

Finally, the combination of enterprises that is optimum for each farm needs to be studied carefully. This requires a study of the potential returns to labor and capital of each combination considered. This type of evaluation is dependent on the assumptions made concerning the farm operators knowledge, skill and general aptitude for each enterprise.

Cooperative Extension should continue to offer programs on the evaluation of farm businesses and optimum resource allocation.

Business Transfer

Many farms are bringing sons or others into the business as partners, but this does not always provide for a sound business transfer. There is a need for carrying out the wishes of those who built the business. A forced sale of the business may result if liquid assets are not available for settling the estate when a partner dies. These mistakes can be avoided only by careful planning.

Cooperative Extension programs on farm partnerships, farm corporations, and retirement and estate planning should continue to emphasize the provisions for transferring farm business to new operators in ways that will protect the interests and needs of all concerned.

Capital Selection

As new equipment, machinery and building designs are developed, farm operators must evaluate the different makes, styles, or brands available. Often decisions are made on the basis of the degree of automation with insufficient regard to performance.

Farm operators who plan business expansion or modernization should give more attention to the selection of capital use based on its likely return. Equally important is the selection of capital for its performance of the job. This is not a simple matter since experience is often lacking. However, the glamour of size and sophistication should not overshadow economy and function.

Cooperative Extension's work in the area of capital selection should be continued.

Marketing

Marketing efforts by egg producers should be carefully evaluated. There are opportunities for some egg producers to sell a portion of their production at premium prices, but some marketing efforts may result in lower net returns than would occur if the marketing were entrusted to specialized marketing organizations.

Feed Milling on Farms

The milling of feeds from home grown grains has been an attractive enterprise for many poultrymen in Western New York. The opportunities for feed cost reductions with grain valued at market prices has been estimated at \$5 to \$10 per ton of layer feed in recent years. These cost savings possibly may have been over emphasized and hidden costs may not have been adequately weighed. Adequate quality control has not been carried out on some farms. Many mistakes have been made in milling on the farm; some with very expensive consequences.

A second consideration in farm milling of feeds is the availability of management time to carry out the milling operations. This is a job that should not, as a rule, be entrusted to hired labor.

These two considerations, feed quality control and the availability of capable management to carry out the milling operations, warrant continued emphasis in Extension programs.