

## EXTENSION CIRCULAR NO. 172

### Why Some Farms Pay

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That there is a great difference in the profitableness of farms has been brought out very forcibly by the investigations of the Department of Farm Economics of the University of Kentucky, which has analyzed the business of hundreds of farmers during the past year. The department showed, for instance, that in Mason and Fleming Counties, for the farm year ending March 1, 1923, 241 farmers averaged \$1,029, while the 15 most efficient farmers averaged \$3,203, as wages for labor and management for the year.

The outstanding factor in the better profits of these 15 farmers was the greater efficiency in the control of expenses and cost of production. For instance, the cost of producing burley tobacco ranged from 10c a pound on one farm to 33c on another farm. The cost in the dark fire-cured district ranged from 9c to 38c per pound. The cost of producing milk was 13c per gallon on one farm and 48c on an adjoining farm. The cost of producing hay was \$10.72 per ton on one farm and \$20.75 on a neighboring farm. The low cost farmers made money; the high cost farmers lost money.

One item which varied greatly was the cost of horse labor which ranged all the way from 80c on one farm to \$2.37 on another farm, for each day the horse worked.

#### WHY SOME FARMERS MADE MONEY.

An analysis of the 241 farms in Mason and Fleming Counties showed why some made money and some did not. The most important factors determining profits were shown to be:

1. Effective control of expenses, as measured by the percentage of total expenses to total receipts.
2. Labor efficiency, as indicated by the amount of productive work accomplished per man.
3. A good volume of receipts per 100 acres of land.
4. Good crop yields.
5. Good returns per livestock unit.
6. Good quality of tobacco, as indicated by the price received per pound.
7. Good diversity of enterprises and a well-balanced business.

Table 1 shows a comparison of the most profitable 15 farms and the average of all farms.

#### HOW TO REDUCE PRODUCTION COSTS.

The following are some points the observance of which enabled the successful farmers to reduce production costs and make more money.

Give greater attention to conserving the soil. It costs nearly as much to cultivate a thin acre as a fertile acre, while a fertile acre produces at half the cost per bushel.

Get the most out of farm-grown fertilizers by doctoring the thin places in the fields with manure, cornstalks, rotted straw and other litter. Make greater use of legumes like red clover, cowpeas and soybeans.

Reduce the cultivated acreage. Stop cultivating the thinner land and allow that to rest in grass and clover until prices improve.

During the 15 years before the war, prices rose, on an average, about 2% a year. The price tendency for the next few years probably will be downward. This means that the emphasis must be placed on economy and rigid control of expenses, especially in the buying of those things whose prices are out of line. Less labor should be hired and there should be more exchanging of labor. Reduce expenses by less harvesting and more grazing and hogging down crops. Grow more rye and less wheat.

Save money by growing more garden produce for the family and more homegrown feeds for the farm stock. "The surest way to make wages these days is to put some labor on vegetables, fruit, wood, meat, poultry and dairy products for use at home. Not since the days of homespun shirts and tallow candles has it been so essential to make the farm produce most of the family's living."

Save expense by doing your own repairing, make your own farm gates and other equipment. Give more attention to the saving of labor. Make things handy about the farm. Keep the gates and doors hung so as to save time. Put tools and equip-



ment in repair several weeks before they are to be used. Order repairs and farm supplies early and avoid loss of time in the rush season.

Plan ahead for each particular job. If planting corn is the job, see that the planter is in working order; that the doubletree and neckyoke are on it; that the oil can and monkey wrench are in their places and the seed corn is ready.

When going to the field to plow, take an extra point and a wrench to put it on with. This may save a trip to the house or to town, to get a new point.

Carry a pocket memorandum book to which should be tied a short lead-pencil. Set down in this the jobs to be done on rainy days and parts of days, ready at a moment's notice. Remember that the surest way to reduce the cost of labor is to work with the hired man and direct him while you work. Benjamin Franklin said, "He who by the plow would thrive, himself must either hold or drive."

Consider the saving of labor by having one man drive more horses. Consider the use of the three-horse breaking plow. Replace the one-horse cultivator with the two-horse cultivator wherever practicable.

Do work at the proper time. A half day's work with the weeder or harrow when the weeds are just sprouting will kill more weeds than two days' work later when the weeds have gotten a start.

Study carefully how to reduce the cost of horse work. Many Kentucky farmers get less than 75 days' work per horse in a year and sometimes less than 50 days. Good farmers often get more than twice as many days' work as the average of their neighbors, thereby cutting the cost of their team labor in half. These good farmers plan their work and carry a memorandum book with a list of bad weather jobs which they do when they can't do outside work with the teams. This enables them to keep the teams busy every day that is suitable for outside work.

Reduce the expenses of keeping work-stock by turning them out on pasture and feeding lightly when not at hard work. Carry the work-stock thru the late fall and winter cheaply on

such roughage as sorghum, corn fodder, and a little grain. Save the good hay for the time when the teams are working hard at such work as breaking land and cultivating crops.

Increase labor efficiency by improving the farm layout. One Kentucky farmer removed a tumbled-down stone fence between two small fields, ground the limestone and applied it to the land, sowed grass and clover and doubled the yield.

Another farmer cleared a thicket out of the middle of a field, thereby doing away with short rows in cultivation. This work was done at odd times and with regular farm labor at practically no cash outlay.

#### IMPORTANCE OF A WELL-BALANCED FARM.

The 241 farms were classified according to the number of points in which they were strong; that is, in which they exceeded the average farm by 10% or more for each point. The results are shown in Table 2. Forty-seven farms were not strong in any point; these gave net earnings of \$109 for the year's work and management of their operators. Sixty-five farms were strong in one point; the net earnings on these averaged \$667.00. Sixty-six farms were strong in two points; these gave net earnings of \$1,253. Forty-five farms were strong in three points; these returned net earnings of \$1,740.00. Eighteen farms were strong in four or more points; the net earnings on these averaged \$2,172.00.

These figures indicate the importance of a well-balanced farm business. It is not merely good crop yields, or high-yielding live stock or high-priced tobacco which determines profits. Very often a farmer overemphasizes or makes a hobby of one factor and neglects other vital factors. Such farmers should bend their efforts toward strengthening the points of the business in which they are weak rather than spending additional effort on the point in which they already excel. If a farm is strong in the seven points or a majority of them it is almost certain to return a profit.

It will be valuable for any farmer to compare his farm with the average farm and the best 15 farms as shown in Table 1.



TABLE 1. Business Statement of 241 Farms and the Best 15 Farms.  
Mason and Fleming Counties.

ITEMS	Average of 241 Farms	Average of Best 15 Farms
1. Farm investment (operator's dwelling not included).....	\$17,927	\$21,753
2. Farm receipts .....	3,714	7,124
3. Farm expenses .....	1,941	3,038
4. Net receipts (line 3 subtracted from line 2) .....	1,773	4,086
5. Interest on farm investment at 6%.....	1,076	1,305
6. Farmers' earnings for labor and management (line 6 subtracted from line 5).....	697	2,781
7. Value of food and other perquisites furnished by farm for the family living .....	332	422
8. Total net earnings.....	1,029	3,203
<b>EFFICIENCY FACTORS</b>		
<b>Control of Expenses</b>		
Expenses per \$100 income.....	52	42
<b>Labor Efficiency</b>		
Productive work days per man.....	203	258
Productive work days per horse.....	47	56
<b>Volume of Sales</b>		
Receipts per 100 acres in farm.....	2,443	3,851
<b>Crop Yields</b>		
Yield of corn per acre.....	35 bu.	41 bu.
Yield of tobacco per acre.....	1,094 lbs.	1,192 lbs.
<b>Quality of Live Stock</b>		
Yield of wheat per acre.....	12.4 bu.	15.4 bu.
Returns per livestock unit.....	56.86	76.03
Returns per \$100 feed fed.....	103.60	151.19
<b>Quality of Products</b>		
Price per lb. for tobacco.....	23.3c	28c
<b>Diversification of Enterprises</b>		
Percentage of receipts from crops.....	61.9%	55.3%
Percentage of receipts from live stock.....	34.%	39.%

**TABLE 2. Effect of Number of Strong Factors in the Farm Organization on Profits.**

(Factors are: (1) labor efficiency, as indicated by the productive work units accomplished per man, (2) receipts per 100 acres, (3) crop yields, (4) returns from live stock, (5) control of expenses, as measured by percentage of expenses to receipts, (6) quality of tobacco, as indicated by the price per pound, (7) good diversity. "Strong" factors are those better than the average by 10% or more).

No. of Strong Factors	No. of Farms	Farmer's Net Earnings for Year
No strong factors.....	47	\$109.00
One strong factor.....	65	667.00
Two strong factors.....	66	1,253.00
Three strong factors.....	45	1,740.00
Four or more strong factors.....	18	2,172.00
All farms .....	241	1,029.00

**WHO WILL OWN THE FARMS TEN YEARS FROM NOW?**

The years that are just ahead will test farmers as they have never been tested before. The inefficient high-cost producer, the man who has not learned how to economize, will be forced out of business. Ten years from now, the farms of Kentucky will be owned by men who have learned how to produce efficiently and at a low cost.