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MINNESOTA FARM MANAGEMENT SERVICE NOTES

No. 49 December 10, 1926

Prepared by the Farm Management Group at University Farm, St. Paul, Minn.

WHAT WOULD YOU DO IF THIS FARM WAS YOURS?

What would you do if this farm was yours? This farm is a square quarter section. The soil is a black loam. The land is gently rolling and all tillable. The farm is equipped with buildings and machinery for general farming. The cattle are of Shorthorn breeding and might be classed as dual purpose. The few sheep kept are of minor importance. Poland China hogs are grown. The farm returned last year under the present organization a family labor income of $1127 besides $1215 or 5 per cent on the farm investment.

Can the returns be increased? If so, what changes in organization and production will be required? Will the expense be increased if the returns are increased? With a view to studying the problem the present farm plan is given and an alternative plan for operating it is suggested. Complete farm records for this farm are available so that it is possible to estimate quite accurately what the results may be.

The first group of tables shows the cropping system and the livestock organization for this farm as it is now operated, together with a statement of financial returns. In estimating the budget yields have been used which may be expected as an average over a period of years rather than actual yields. The following prices are assumed to be indicative of the long time normal relationship between the prices for the commodities given.

Alfalfa	$15.00 ton	Butterfat	.45 lb.	Hogs	8.50 cwt.
Corn	.50 bu.	Beef cattle	8.00 cwt.	Poultry	.20 lb.
Wheat	1.00 "	Wool	.25 lb.	Eggs	.25 doz.
Oats	.30 "	Lambs	8.00 cwt.		

Present Organization

Budget of Probable Returns to Present Organization, if followed, Based on Predicted Yields and Prices Indicated

	Crops					
Crop	Acres	Yield	Production	Requirements Feed	Seed	Saleable surplus
Alfalfa	4.2	2¼	9½	9½		
Fodder	7.0	2	14	14		
Corn	65.0	40	2600	923	17	1660
Oats	52.7	50	2625	1260	150	1215
Pasture*	20.6					
Other	10.5					

*In addition 27 acres of pasture was rented.

Livestock

Kind & number	Kind of product	Total production	Home use	Saleable surplus
6 horses				
1 colt				
10 cows	Butterfat	1700 lbs.	200 lbs.	1500 lbs.
1 bull				
16 yg. cattle	Beef	6100 "	1300 "	4800 "
3 sheep	Wool	30 "		30 "
4 lambs	Mutton	325 "		325 "
8 sows*				
49 pigs	Pork	11600 "	300 "	11300 "
175 poultry	Poultry	375 "	50 "	325 "
	Eggs	650 doz.	100 doz.	550 doz.

*8 litters farrowed in the spring

Feed Needed for Livestock

Kind of feed		Total fed	Class of Livestock					
			Horses*	Colts*	Cattle**	Sheep**	Swine	Poultry
Alfalfa	tons	9½			9½			
Fodder	"	14	2¾	¼	10½	½		
Corn	bu.	923	47	1	45		720	110
Oats	"	1260	21	1	222		320	296
Tankage	lbs.	100					100	
Whole milk	"	1500			1500			
Skimmilk	"	39000			18000	12000		9000

*Received straw in winter and pastured corn stalks
**Pastured corn stalks

Financial Statement

Receipts:	Amount	Value
Corn	1660 bu.	$830
Oats	1215 "	365
Butterfat	1500 lbs.	675
Beef	4800 "	384
Wool	30 "	8
Mutton	325 "	26
Pork	11300 "	960
Poultry	325 "	65
Eggs	550 doz.	138
Other		20
Total receipts		$3471

Expenses:	
Medicine & veterinary	$27
Feed	8
Pasture rent(27 acres)	70
Twine corn 23 @ 14)	23
" oats 142 @ 14)	
Thresh oats 2625 @ 3½	92
Seed alfalfa(¼ of total)	5
Seed rape 100 lbs.	10
Buildings, repair & depreciation	175
Tractor 125 hrs.	110
Machinery(including auto)	295
Hired labor	4
General overhead	310
Total expenses	$1129

Excess of receipts over expenses	2342
Interest on total investment @ 5 per cent	1215
Return to present organization(above interest on investment)	$1127

A different plan for operating this farm, which shows a considerably greater return than the present system, is suggested below. In the new plan the same yields and prices are used as were used in the present organization. For the new crops which are introduced conservative yields have been estimated. The amounts of feed used for the different classes of livestock are as nearly the same as it is possible to have them, considering the changes in the crops. No change in the efficiency of the operator is assumed. The greater return, therefore, must be due to a more profitable combination of enterprises.

The reorganized plan provides three major changes; winter wheat as a cash crop partially replaces oats on acreage formerly in oats; the hog enterprise is expanded so that most of the corn is fed; sweet clover pasture is substituted for the bluegrass pasture formerly used and alfalfa is made available for hog pasture. With sweet clover pasture it is not necessary to rent additional pasture land. This plan is based on a definite system of crop rotation. The number of work horses remains the same but the tractor is disposed of. The number of hours worked per horse, therefore, must be increased. The increase is from 730 hours per horse to 850 but additional feed is provided in proportion to the increase in the work done. More hay is produced than this farmer would use so some alfalfa is sold. This plan of operation gives $856 greater returns than the plan now being followed.

Suggested Reorganization

Budget of Probable Returns from a Suggested Long Time Organization Based on Predicted Yields and Prices Indicated

Crops

Crop	Acres	Yield	Production	Requirements Feed	Seed	Saleable surplus
Alfalfa	4¼	2¼	9½	1½		8
Clover	6-2/3	1¼	8¼	8¼		
Fodder	7	2	14	14		
Corn	59-2/3	40	2385	2195	17	173
Winter wheat	20	20	400		30	370
Oats	31-2/3	50	1585	1495	90	
Sw. clo.pasture	15					
Alfalfa pasture	4¼					
Other	11½					

Livestock

Kind & number	Kind of product	Total production	Home use	Saleable surplus
6 horses				
10 cows	Butterfat	1700 lbs.	200 lbs.	1500 lbs.
1 bull				
16 yg. cattle	Beef	6100 "	1300 "	4800 "
3 sheep	Wool	30 "		30 "
4 lambs	Mutton	325 "		325 "
16 sows*				
122 pigs	Pork	29000 "	300 "	28700 "
175 poultry	Poultry	375 "	50 "	375 "
	Eggs	650 doz.	100 doz.	550 doz.

*16 litters farrowed in the spring - 8 farrowed in the fall.

Feed Needed for Livestock

Kind of feed		Total fed	Class of Livestock				
			Horses	Cattle	Sheep	Swine	Poultry
Alfalfa	tons	1½		1½			
Clover	"	8¼	½	8			
Fodder	"	14	3	10½	½		
Corn	bu.	2195	55	45		1985	110
Oats	"	1495	495	222		482	296
Tankage	lbs.	1400				1400	
Whole milk	"	1500		1500			
Skimmilk	"	39000		13000		12000	9000

Financial Statement

Receipts:

Alfalfa	8	tons	$120
Corn	173	bu.	86
Wheat	370	"	370
Butterfat	1500	lbs.	675
Beef	4800	"	384
Wool	30	"	8
Mutton	325	"	26
Pork	28700	"	2440
Poultry	325	"	65
Eggs	550	doz.	138
Other			20
Total receipts			$4332

Expenses:

Medicine & veterinary			$60
Feed			50
Twine	corn	23)	
"	oats	86) @ 14	22
"	wheat	55)	
Thresh	oats	1585 @ 3½	55
"	wheat	400 @ 7	28
Seed	alfalfa(½ of total)		10
Seed	sw. clover	150 @ 10	15
Seed	red clover	53 @ 25	13
Building, repair & depreciation			175
Machinery(including auto)			295
Hired labor			90
General overhead			310
Total expenses			$1124

Excess of receipts over expenses	$3208
Interest on total investment @ 5 per cent	1225
Return to reorganized plan(above interest on the investment)	1983
Return to present organization	1127
Difference in favor of reorganized plan	$856

The purpose of this discussion is to illustrate a method by which the farm business can be adjusted so as to increase the returns. Several alternative plans should be worked up so that the most desirable one may be selected. The plan adopted should not be followed too rigidly. It should be readjusted for the more permanent changes in theprice level, for new crops which may become adapted to the area, for combating weeds and insect pests, etc. A long time plan should be used as a goal toward which to work rather than as a fixed plan of operation. It will serve as a guide toward the desired end but it must be flexible enough so that for any particular year the plan can be adapted to conditions peculiar to that year.

Have you studied your farm business to determine whether you are following a remunerative plan of farming? Could some changes in your organization be made which would increase the returns? Wouldn't you find it profitable to have a future plan in mind constantly?

Andrew T. Hoverstad.