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AGRICULTURAL EXTENSION DIVISION
UNIVERSITY OF MINNESOTA

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MINNESOTA FARM BUSINESS NOTES

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Prepared by the Division of Agricultural Economics
University Farm, St. Paul, Minnesota

PROFITABLE LIVESTOCK PRACTICES
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Farm records obtained in southern Minnesota show a wide variation among farmers in the profitableness of each of the livestock enterprises. The variation in profitableness is the result of differences in practices and methods of handling the livestock. Some of the practices which were associated with the greatest profit are presented in the following discussion.

Dairy Cows

In southeastern Minnesota, the following practices were found to lead to high butterfat production per cow and to high returns:

1. The farms on which the herds were well bred, as evidenced by the use of sires whose dams had records of over 700 pounds of butterfat, averaged 279 pounds of butterfat per cow. With sires of less than 700 pound ancestry, the average production was 238 pounds, and with sires of unknown ancestry, the production was only 228 pounds per cow.

2. The average butterfat production per cow on the farms where a ration containing 15.5 per cent or more protein was being fed was 260 pounds, while on the farms where a ration containing less than 9.5 per cent protein was being fed, production averaged only 197 pounds.

3. Thirty-four herds in which the dry cows received no grain during the winter had an average production of 218 pounds of butterfat. The average for the herds in which they received at least 2 pounds of grain per day was 258 pounds of butterfat.

4. Herds having a high percentage of the cows freshening in the fall had higher average production than those with a small proportion of the cows calving in the fall. (See Table 1.)

Table 1. Relationship Between the Per Cent of the Cows Freshening in the Fall and the Average Production per Cow

	Per cent of Cows Freshening in the Fall		
	Less than 30	30 to 69	70 and over
Average per cent	16	52	83
Butterfat per cow, lbs.	217	240	254

5. Supplementing pastures with either grain or roughage, or both, increased the production per cow without increasing the total digestible nutrients fed per pound of butterfat produced.

6. Selection of the herd sire on the basis of the records of his sisters as well as that of his dam.

7. Provision of drinking cups.

The relation of all-around skill in breeding, feeding and managing the dairy herd to butterfat production per cow is illustrated in Table 2.

Table 2. Relation of Number of Good Practices Followed to Butterfat Production per Cow--Southcast Minnesota, 1931

	Total No. of above Practices Followed							
	0	1	2	3	4	5	6	7
No. of farms	2	15	22	24	24	27	14	16
Butterfat per cow, lbs.	188	205	207	229	243	248	283	291

Young Dairy Cattle

The following practices were associated with high returns from young dairy cattle:

1. Selling all calves as veals which were not intended for herd replacements.
2. Raising only calves from high producing cows for herd replacement.
3. Breeding the cows for fall calving. The herds with a high proportion of the calves dropped in the fall gave higher returns from young cattle than the other herds.

Beef Cattle

Records from beef cattle and hog farms in southwestern Minnesota indicate the following results of different practices with beef cattle;

1. Breeding stock of good beef type and conformation required no more feed than low grade breeding stock but the calves from the well bred herds, on the average, sold for \$2.20 more per 100 pounds than those from the low grade herds. Part of this difference was due to differences in finish but most of it to differences in breeding.
2. Feed in excess of the amount required to keep the breeding herd in fair flesh brought little or no return.
3. Fattening cattle receiving oilmeal made more economical gains than those not receiving oilmeal. (See Table 3.) At 1931 prices, the feed cost per 100 pounds gain was \$1.34 less when oilmeal was fed.

Table 3. Relation Between Amount of Oilmeal Fed and Feed Consumption per 100 Pounds Gain in Weight for Feeder Cattle - 1930, 1931

Amount of oilmeal fed per 100 lbs. gain in weight	Oilmeal lbs.	Grain lbs.	Dry roughage lbs.	Pasture days
10 lbs. or less	3	986	370	10
Over 10 lbs.	27	824	266	2

4. On the average, the increase in income obtained by milking these beef cows and selling the cream, did not pay going wages for the extra labor. Unless there is no other profitable employment available for the family labor, greater returns might be expected from letting the calves do the milking.

Swine

The amount of feed used to produce 100 pounds gain in weight and the price received for hogs sold are the most important factors causing variation from farm to farm in the profits from hogs. Farm records show the following results of different practices in raising hogs in southern Minnesota:

1. A large number of pigs saved per litter was associated with low feed expenditures per 100 pounds gain in weight since the feed for the breeding herd is divided by a larger number of pigs. (See Table 4.)

Table 4. Relationship Between the Number of Pigs Saved per Litter, Economy of Gains, and Returns from Hogs

Figs per litter	Average pigs per litter	Per 100 Lbs. Produced	
		Feed used	Return above feed cost*
Below 5.0	4.2	598 lbs.	\$.34
5.0 to 6.9	6.0	523 "	1.35
7 and above	8.3	502 "	1.75

*Returns in this and following tables computed on the basis of 1928 to 1931 prices.

2. The practicing of the swine sanitation system, involving the use of good pastures, reduced the amount of feed used per 100 pounds gain and increased the returns.

3. The full feeding of pigs resulted in more rapid and economical gains.

4. Pigs with access to good legume pastures made more economical gains than those not having good legume pastures.

5. In southeastern Minnesota, lower feed cost and higher returns above feed cost were obtained on the farms raising both spring and fall litters. In southwestern Minnesota, the farms raising only spring litters secured the best results.

6. More economical gains and larger returns were secured when the average weight of all hogs marketed was from 200 to 250 pounds than at either lighter or heavier weights. Since these weights include those of the sows and stags sold, the weight of the market hogs would be less than these weights.

7. The most efficient use of the skimmilk was obtained when less than 400 pounds were fed for each 100 pounds gain in weight.

8. On the average, the pigs farrowed before April first used less feed per pound of gain, sold at a higher price and gave a larger return over feed cost than those farrowed later.

9. The pigs that were weaned before they were eight weeks old used less feed per pound of gain and gave higher returns than those that were weaned later or were allowed to wean themselves.

10. The farms on which the pigs had a separate feeding place received slightly larger returns than those not providing separate feeding places.

11. When the pigs were put on pasture within two weeks after farrowing, slightly more economical gains and greater returns were obtained than when put on pasture either later or not at all.

12. Sows receiving protein supplement during pregnancy raised a larger number of pigs per litter than those not receiving a protein supplement.

The effect of all-around skill in handling hogs is indicated in Table 5.

Table 5. Relation of the Number of Practices Followed to Economy of Gains and Returns for Hogs

Total no. of above practices followed	Per 100 Lbs. of Hogs Produced		
	Feed used	% of average selling price received	Returns above feed cost
1 or none	556 lbs.	95	\$-.78 (a loss)
2 and 3	507 "	98	.08
4 and 5	475 "	100	.91
6 and 7	456 "	101	1.50
8 or more	415 "	104	2.25

Poultry

The records show that returns from poultry depended on both egg and meat production per hen with either the light or the heavy breeds. The light breeds, with their higher egg production, gave the largest returns in 1928, 1929, and 1930 but in 1931 the heavy breeds with their larger meat production, gave the largest returns.

The results of various practices followed in raising poultry are indicated in the following discussion:

1. Flocks built up from chicks or hatching eggs obtained from flocks with high production produced a larger number of eggs per hen. (See Table 6.)

Table 6. Relation of Selection of Chickens to Production

<u>Selection of</u>	<u>Eggs per hen</u>
Chicks from high producing flocks	143
Chicks with no attention to production	112

2. Flocks which were culled two or more times a year averaged 133 eggs per hen; those culled once a year averaged 112, and those not culled averaged only 108.

3. The effect of confinement of the laying flock in winter was to increase the number of eggs laid per hen. (See Table 7.)

Table 7. Relationship Between the Number of Months the Laying Flocks were Shut Up and the Egg Production per Hen

	<u>Months Hens were Confined</u>		
	<u>Below 5</u>	<u>5 to 6.9</u>	<u>7.0 & over</u>
Eggs laid per hen	109	123	150
Return over feed cost per hen	\$1.10	\$1.39	\$2.12

4. Flocks in which a large percentage of the hens was replaced with pullets each year produced more eggs per hen than flocks consisting of older hens.

5. High egg production was associated with the feeding of a relatively large amount of skimmilk. (See Table 8.)

Table 8. Amount of Skimmilk Fed, Egg Production, and Returns Over Feed Cost per Hen

	<u>Amount of Skimmilk Fed per Hen</u>		
	<u>Below 50 lbs.</u>	<u>50 to 149 lbs.</u>	<u>Over 149 lbs.</u>
Eggs laid per hen	97	114	130
Return over feed cost per hen	\$1.36	\$1.72	\$2.23

6. Flocks in which the chickens were hatched in April gave the highest egg production and largest return over feed cost.

Other practices which seemed profitable were: (7) the regular delousing of the laying hens, (8) the use of self feeders in feeding mash to laying hens, (9) scrubbing out the brooder house with boiling lye water before it was used for a new flock of chickens, (10) cleaning out the brooder house at least twice a week, (11) shutting up the pullets before inclement weather started, usually in October, (12) raising the chickens on clean runs and yards, and (13) the liberal feeding of grain and mash to laying hens.

The relation of the number of these practices followed to the returns from the poultry enterprise are indicated in Table 9.

Table 9. Relation of Number of Practices Followed to Production and Returns from the Poultry Enterprise

	Tot.No. of Above Practices Followed			
	2 or less	3 to 5	6 to 8	9 or more
Eggs laid per hen	101	108	128	145
Value of meat per hen	\$.42	\$.84	\$1.16	\$1.33
Returns above feed cost per hen	.73	1.07	1.66	2.00

MINNESOTA FARM PRICES FOR SEPTEMBER 1932

Prepared by Adena E. Erickson

The index number of Minnesota farm prices for the month of September 1932 was 40.0. When the average of farm prices of the three Septembers of 1924-25-26 is represented by 100, the indexes for September of each year from 1924 to date are as follows:

September 1924	-	93.6
"	1925	- 102.7
"	1926	- 102.8
"	1927	- 99.5
"	1928	- 101.0
"	1929	- 109.7
"	1930	- 83.6*
"	1931	- 54.6*
"	1932	- 40.0*

*Preliminary

The price index of 40.0 for the past month is the net result of increases and decreases in the prices of farm products in September 1932 over the average of September 1924-25-26 weighted according to their relative importance.

Average Farm Prices Used in Computing the Minnesota Farm Price Index, September 15, 1932 with Comparisons*

	Sept.15, 1932	Aug.15, 1932	Sept.15, 1931	av.Sept. 1924-25-26	% Sept.15, 1932 is of Aug. 15, 1932	% Sept.15, 1932 is of Sept. 15, 1931	% Sept.15, 1932 is of Sept. 15, 1924-25-26
Wheat	\$.41	\$.41	\$.52	\$1.24	100	79	33
Corn	.21	.27	.38	.91	78	55	23
Oats	.12	.12	.17	.36	100	71	33
Barley	.18	.20	.30	.56	90	60	32
Rye	.22	.22	.26	.77	100	85	29
Flax	.93	.82	1.18	2.19	113	79	42
Potatoes	.22	.26	.45	.84	85	49	26
Hogs	3.70	4.00	5.10	10.59	92	72	35
Cattle	4.60	4.40	4.90	6.12	104	94	75
Calves	5.53	4.80	7.50	9.17	115	73	60
Lambs-sheep	4.33	4.27	5.19	10.92	101	83	40
Chickens	.100	.096	.141	.179	104	71	56
Eggs	.14	.13	.15	.29	108	93	48
Butterfat	.19	.19	.29	.41	100	65	46
Hay	6.66	6.86	9.06	12.00	97	73	55
Milk	1.21	1.19	1.65	2.21	102	73	55

*Except for milk, these are the average prices for Minnesota as reported by the United States Department of Agriculture.