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PURPOSE AND RESULTS OF THE STEELE COUNTY STATISTICAL ROUTE
(University of Minnesota and U. S. Department of Agriculture
in Cooperation With the Farm Bureau of Steele County)

Object: The objects in view in conducting this study of farm costs are: 1-To compare the profit between different crops and different classes of livestock in order that a farmer may more systematically plan his business.

2-To determine the best methods of production by studying the methods of those who are consistently low cost producers. Among the 23 farms included on this route in 1921, the cost of a pound of butter fat varied from \$.30 to \$1.11, and the cost of a bushel of corn from \$.25 to \$.75.

3-To determine the quantity of labor, feed and other elements of cost entering into the production of any given product. Then by applying current prices of feed, labor, etc., close estimates of cost can be made for any given price situation.

4-To furnish Congress, State Legislatures, and the various governmental agencies which deal with policies affecting the farming business with dependable information as to farm costs and profits. For example, figures from this cost route were presented with good effect in 1921 before the Inter-State Commerce Commission in the hearing on grain freight rates.

How Supported:

Jointly financed by the University of Minnesota and the U. S. Department of Agriculture.

Method of Getting Costs:

During 1921 twenty-three farmers furnished the material for complete cost records. A route man is stationed at Owatonna who visits each farm two or three times per week, gathering complete records of every detail of the farm business. Inventories were taken

at the beginning and end of the year. Every hour of labor performed and every dollar of cash received or paid out was recorded. Complete feed records were kept for all classes of livestock. Each field was carefully measured in order to determine the yield on the acre basis.

These figures were sent to the Cost Accounting Section of the Experiment Station where all computing was done by trained accountants. Two such routes are being conducted in Minnesota. The other route is in the vicinity of Windom.

1921
STATISTICS FOR YEAR ENDING JANUARY 1, 1922
(Average of 23 Farms on Steele County Route)

| | <u>Average</u> | <u>Lowest</u> | <u>Highest</u> |
|--|----------------|---------------|----------------|
| Acres per farm | 182 | 80 | 336 |
| Crop acres per farm | 132 | 59 | 281 |
| Hours labor by proprietor per week day | 11.9 | 9.6 | 13.3 |
| Hours labor by proprietor per Sunday | 6.5 | 4.2 | 8.2 |
| Hours unpaid family labor per day | 7.1 | .2 | 30 |
| Days hired labor per year | 132 | 0 | 380 |
| Average cost of man labor per hour (board included) | 17½ | --- | --- |
| Acres of crops per work horse (not including pasture) | 19.7 | 11.8 | 33.2 |
| Hours of labor per horse per year | 857 | 554 | 1214 |
| Cost of horse labor per hour | 9 ¢ | --- | --- |
| <u>Crop yields:</u> | | | |
| X Wheat | 11.3 | 3.5 | 16.5 |
| X Oats | 36 | 17.0 | 50.0 |
| X Corn | 46 | 25.0 | 75.0 |
| X Silage | 7.3 | 5.0 | 11.0 |
| X Tame hay | 1.5 | .7 | 2.3 |
| X Wild hay | .6 | .3 | 1.1 |
| <u>Cost of products per bu. or ton:</u> | | | |
| Wheat | \$ 1.50 | \$ 1.02 | \$ 5.10 |
| Oats | .41 | .27 | .99 |
| Corn | .41 | .26 | 1.20 |
| Silage | 3.40 | 2.80 | 4.88 |
| Tame hay | 7.90 | 5.10 | 15.40 |
| Wild hay | 11.67 | 8.54 | 27.50 |
| <u>Cost of livestock products per lb:</u> | | | |
| Butterfat | \$.57 | \$.30 | \$ 1.11 |
| Pork | 5.2 ¢ | 3.3 ¢ | 8.7 ¢ |

X- Land rent charged at \$6.50 per acre.

AVERAGE RETURNS FROM 23 FARMS, OWATONNA, 1921

Receipts:

| | | |
|-------------------------|-----------|---------|
| Horses | \$ 36 | |
| Dairy products & cattle | 1727 | |
| Swine | 795 | |
| Poultry | 148 | |
| Sheep | 6 | |
| Crops | 184 | |
| Misc. outside work | <u>51</u> | |
| Total | | \$ 2947 |

Expenses:

| | | |
|--------------------------|-----------|---------|
| Hired labor | \$ 173 | |
| Crop expense | 112 | |
| Livestock expense | 396 | |
| Feeds purchased | 112 | |
| Machinery expense | 314 | |
| Building & fence repairs | 84 | |
| Taxes and Insurance | 180 | |
| Interest | 56 | |
| Rent | 171 | |
| Misc. | <u>15</u> | |
| Total | | \$ 1613 |

Excess of cash receipts over cash expenses 1334

Value of products used in house 184

Estimated house rent (12% of \$1800) ~~216~~

Total income not counting decrease in inventory 1734

Business expenses, not cash:

Decreased inventory \$1226

Value unpaid family labor 402

Total \$1628

Excess of income over expenses:

(Pay for 3678 hours of labor of proprietor
and interest on investment of \$25,780) \$106

C O R N
(Average Cost of Production, 23 farms, 1921)

| | |
|--|-------------|
| Man hours 23 3/4 @ 17 1/2 ¢ | \$ 4.13 |
| Horse hours 43 1/4 @ 9 ¢ | 3.87 |
| Tractor hours 2 @ 1.25 | 2.50 |
| Seed cost | .64 |
| Twine | .14 |
| Machinery charge | <u>1.92</u> |
| Total operating cost | \$ 13.20 |
| Assumed land rent | <u>6.50</u> |
| Total cost per acre | \$ 19.70 |
| Yield .29 T. roughage & 45.8 bu. grain | |
| Cost per bushel | 41 ¢ |

O A T S
Average Cost of Production 17 Farms, 1921)

| | |
|-----------------------------|-------------|
| Man hours, 8 1/3 @ 17 1/2 ¢ | \$ 1.43 |
| Horse hours, 15 1/4 @ 9 ¢ | 1.33 |
| Tractor hours, 1 @ 1.25 | 1.25 |
| Seed cost | .88 |
| Twine | .41 |
| Threshing | 1.48 |
| Machinery charge | <u>1.50</u> |
| Total operating cost | \$ 8.28 |
| Assumed land rent | <u>6.50</u> |
| Total cost per acre | \$ 14.78 |
| Yield | 35.7 bu. |
| Cost per bushel | 41 ¢ |

No charge for manure has been included in the foregoing figures for oats and corn as data has not been completely worked up.

Crops per 160 acres:

| | |
|-------------|----|
| Corn | 37 |
| Small grain | 48 |
| Timothy | 19 |

Av. Cost of Butterfat Production, Owatonna, 1921. (Per Cow Basis)
(Average of 19 farms, 298 Cows)

Feed:

| | |
|---------------------------------|-------------|
| Silage, 3.4 T. | \$ 13.70 |
| Hay, mostly tame, .9 T. | 10.79 |
| Corn, 319# @ 69¢ cwt. | 2.21 |
| Oats, barley & succotash, 1320# | 7.02 |
| Bran, & dairy feed 193# | 2.43 |
| Oilmeal 56# | 1.35 |
| Pasture, 179 days | <u>5.57</u> |

Total feed \$ 43.07

| | |
|------------------------------------|-------------|
| Man labor, 191 1/3 hrs. @ 17 1/2 ¢ | 33.48 |
| Horse labor, 11 2/3 hrs. @ 9 ¢ | 1.05 |
| Tractor labor, 1.06 hrs. @ 1.25 | 1.32 |
| Misc. cash cost | 1.79 |
| Depreciation | 15.70 |
| Interest @ 6% | <u>7.68</u> |

Total cost per cow \$ 104.09

| | |
|----------------------------|-------|
| Skimmilk credit | 7.72 |
| Net cost of butterfat | 96.37 |
| Average No. pounds per cow | 170 |
| Cost per pound | 57 ¢ |
| Average selling price | 48 ¢ |

| | |
|---|-----------|
| Return per farm for 2995 hrs. man labor | \$ 308.47 |
| " " hour of man labor | 10.3 ¢ |

The manure and calf credits have here been assumed to offset the equipment, shelter and bull charges

Average Cost of Pork Production
(18 Owatonna Farms, 1921)

| | |
|-------------------------------|------------|
| Grain, 393# @ 6.4¢ per cwt | \$ 2.50 |
| Skimmilk, 308# @ 22¢ per cwt | .68 |
| Pasture | .24 |
| Man labor, 6 hrs. @ 17 1/2 ¢ | 1.05 |
| Horse labor, 1 1/3 hrs. @ 9 ¢ | .12 |
| Misc. cash cost | .07 |
| Interest @ 6% | .30 |
| Shelter | <u>.24</u> |

Total cost \$ 5.20

| | |
|------------------------------|------|
| Average sale price | 7.72 |
| Profit | 2.52 |
| Average return per 56# grain | .72 |