



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

*No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.*

CO-OPERATIVE EXTENSION WORK  
IN  
AGRICULTURE AND HOME ECONOMICS  
STATE OF MINNESOTA

COX  
=

Vol 1  
1-151

Report 1

College of Agriculture,  
University of Minnesota,  
U. S. Department of Agriculture  
Co-operating

Agricultural Extension Service  
County Agent Work.

University Farm, St. Paul, Minn.

THE PURPOSE AND RESULTS OF THE OWATONNA STATISTICAL ROUTE CONDUCTED JOINTLY  
BY THE UNIVERSITY OF MINNESOTA & THE U. S. DEPARTMENT OF AGRICULTURE

Object:

The purpose of this study and in fact of all studies of farm production costs and farm profits are as follows:

1. To compare the profits between different crops and different classes of livestock in order that the farmer may select the best combination of crops and livestock.
2. To determine the best methods of production by studying the methods of those producing at a low cost. Some farmers always produce certain products more cheaply than their neighbors and their methods offer valuable suggestions to others. Those who produce at a low cost make the most money in good times and are least affected by a depression.
3. To determine the quantity of labor, feed, and other elements of cost entering into the production of any given product, them by applying current prices of feed, labor, etc. close estimates of cost can be made for any given set of conditions.
4. To furnish the public with dependable information on farm costs and farm profits.

Method of Getting Costs

The complete records of the year's business were obtained on 23 farms in vicinity of Owatonna during 1920. These records were obtained in co-operation with local farmers by joint representatives of the Minnesota Agricultural Experiment Station and the U. S. Department of Agriculture. A man was stationed in Owatonna who visited each of these farms two or three times a week, gathering complete records of every detail of the farm business. Inventories were taken at the beginning and close of the year. Every hour of labor performed and every dollar of cost received or paid out was recorded. Complete feed records were kept for all classes of stock. The farms were carefully surveyed and the acreage in each field determined in order to obtain accurate records on cost and yield on the acre basis. Complete records of crop and livestock production, seed, twine, etc., were kept. These figures were sent in to the Cost Accounting Office at the Experiment Station and the costs of producing the various farm products

Volume  
I



were computed. The profits from each farm as a whole was figured and also the profit or loss on each crop or livestock enterprise. Two such statistical routes are being conducted in Minnesota: Windom and Owatonna. Owatonna was favored with one of these routes because of the active interest of the County Farm Bureau. Such studies have been conducted by the College of Agriculture since 1902.

Statistics on Owatonna Farms 1920

	<u>Maximum</u>	<u>Minimum</u>	<u>Average</u>
Acres per farm	366	80	182
Crop acres per farm	253½	60	128
Hours labor by proprietor per week day	12.7	8.3	10.9
Hours labor by proprietor per Sunday	8.1	4.2	5.7
Hours unpaid labor per day	26.2	.2	5.3
Days hired labor per year	405	5	186
Average cost man labor per hour (including board)			\$ .32
Acres of crops per horse (not including pasture)	33	13	20½
Hours labor per horse per year	1161	565	832
Average cost of horse labor per hour			\$ .17
Yields:			
Corn, bushels	61	30	45
Oats, "	63	23	47
Silage, tons	10.5	3.8	7.1
Tame hay, tons	2.8	.6	1.8
Wild hay, tons	1.8	.6	1.1
Cost of producing corn per bushel	\$ .89	\$ .48	\$ .65
Cost of producing oats per bushel	\$ .57	\$ .30	\$ .40
Cost of butter per pound	\$ 1.47	\$ .59	\$ .95
Cost of pork per cwt.	\$ 21.46	\$ 6.32	\$ 11.50

Average Financial Returns (23 farms)

Receipts

Butterfat and dairy products	\$ 1699.51
Cattle	1121.85
Swine	1754.99
Poultry	212.06
Crops	568.87
Outside work and miscellaneous	181.72
Bills receivable	9.31

Total \$ 5547.31

Expenses

Hired labor	\$ 419.96
Feed purchased	379.33
Cash crop expenses - twine, seed etc.	239.55
Cash livestock expenses	840.28
Taxes, interest, and insurance	583.92
Machinery expense	918.13
Other business expenses	45.32
Bills payable	215.39

Total \$ 3641.88

Excess of cash receipts over cash expenses	\$ 1905.43
Value of farm products used in household	284.00
Estimated rent of Farm House (12% of \$1738)	<u>208.56</u>

Total income (not considering decrease of inventory) \$ 2397.99

Business Expenses (not cash)

Decrease of inventory	\$ 1681.65
Value of unpaid family labor except operator's time - 1702 hours @ 32¢	<u>544.64</u>

Total \$ 2226.29

Excess of business receipts over expenses \$ 171.70

Personal Expenses

Household expenses	\$ 510.53
Personal expenses except household	<u>304.53</u>

Total \$ 815.06

In general the following favor low cost of production:

1. A business large enough to use 4 and 5 horse teams to advantage.

2. A system of rotations and livestock feeding and breeding that results in a larger production per acre or animal than the average.

3. Sufficient livestock to utilize hay, stalks, pasture and cheap feed.

4. A farm laid out in large rectangular fields.

5. A well balanced farm. A good rotation, good cows or a large farm business do not alone insure success but it is beating the average in all the important items that make up successful farming.