



151

ANNUAL REPORT
OF THE
OFFICE OF SWINE EXTENSION
NORTH CAROLINA STATE COLLEGE OF AGRICULTURE AND ENGINEERING

Fiscal Year Ending November 30, 1931.

W. W. Shay, In Charge

Mrs. C. H. Young, Secretary

PROGRESS

During 1931 some progress was made in Swine Extension work as compared with 1930, as shown below.

Comparison Of The Years 1930 And 1931.

Year	No. Demonstrations		No. Hogs	Counties	Feed Per 100# Gain		Profit	
	Started	Completed			Amount	Cost	Per Pig	Total
1931	150	99	2,206	15	373	\$5.12	\$2.57	\$5,675.15
1930	82	49	1,048	11	372	6.27	3.94	4,131.58
Gain	68	50	1,158	4	1	\$1.15	-\$1.37	\$1,543.57

Accomplishment Compared With Possibility.

Results are fairly measured only when they are compared with the possibilities of an enterprise and due consideration is given the time and support available for accomplishment.

In order to clearly visualize the opportunity for constructive work on an extensive scale that is presented by Swine Extension it is necessary to realize that approximately one third of the cultivated acreage of the state is devoted to the production of corn.

Corn normally occupies about the same acreage as both cotton and tobacco, and more than all other crops including all hay; an average of 2,424,000 acres were planted to corn during each of the last four years.

An average increase of only \$3.00 per acre in the return for corn would amount to \$7,272,000. annually!

HOW PROFIT ON CORN IS AFFECTED BY CONVERSION TO PORK

Year	Market Price Per Bu.	Returned by hogs Per Bu.	Increased by feeding		NET RETURN ON CORN COSTING 60¢			
			Per B.	%	Sold as Corn		Increase in profit	
					Per Bu.	Per Bu.	Per Bu.	Per Cent
1926	\$0.96	\$2.06	\$1.10	115	\$0.36	\$1.46	\$1.10	306
1927	0.83	1.65	0.82	99	0.23	1.05	0.82	357
1928	0.88	1.40	0.52	59	0.28	0.80	0.52	186
1929	1.09	1.50	0.41	38	0.49	0.90	0.41	84
1930	0.87	1.51	0.64	74	0.27	0.91	0.64	237
1931	0.69	1.05	0.36	52	0.09	0.45	0.36	400
6 Yrs.	Av. \$0.89	\$1.53	\$0.64	72	\$0.29	\$0.93	\$0.64	*220%

*The Profit on corn costing \$0.75 to produce would be increased \$0.64 per bushel, or 457 per cent.

CORN COSTING 60 CENTS PER BUSHEL TO PRODUCE:

If sold as pork for	80 cents,	PROFIT	20 cents
<u>If sold as corn for</u>	<u>45 cents.</u>	<u>LOSS</u>	<u>15 cents</u>
Difference in favor of pork:	35 cents		35 cents

Change a loss of 25% To a profit of 33.3%

It is said that forty five per cent (45%) of the total corn crop of the United States is fed to hogs.

If twenty five per cent (25%) of the total corn crop of the State of North Carolina during each of the last six years had been converted into pork, through hogs that were properly fed, and sold at the current prices which 13,788 hogs upon which records have been kept during that period sold for, the return for the corn consumed by the hogs would have been Increased Forty Eight Million Six Hundred Thirty Four Thousand Six Hundred Eighty Three Dollars!

Year	Yield	25%	Increase Per Bushel	Total Increase In Return For Corn
1926	52,272,000	13,068,000	\$1.10	\$14,374,800
1927	53,626,000	13,406,500	.82	10,993,330
1928	42,901,140	10,725,285	.52	5,577,148
1929	49,902,515	12,475,629	.41	5,115,008
1930	51,549,485	12,887,371	.64	8,247,917
1931	48,072,000	12,018,000	.36	4,326,480
6 Years	298,323,140	74,580,785	Av. 0.64	\$48,634,683

\$48,634,683.00

WAS IT NOT WORTH TRYING FOR?

Presentation.

In exculpation it may be stated that had the number of hogs shipped been increased to the extent necessary to consume twenty - five per cent of the corn crop of the state, the price would not have held to the level enjoyed under the restricted production which was practiced.

This contention, while freely granted, can scarcely be considered as extenuation for not going as far as was reasonably possible in the expansion of a safe, sane, and profitable project, the safety and sanity of which would be assured by the constant check-up on the farm cost of production maintained through the keeping of scattered records similar to the one kept by County Agent, C. E. Faris and W. O. Gaskins.

There can be no reasonable doubt that, like cotton and tobacco, the elimination of that part of the total production which is produced at a loss under normal price conditions, would prevent over-production to the benefit of many and the injury of none.

Except through cost records, how is the farm cost of production to be learned?

Over 125 years ago a group of men connected with the Federal Government met every Saturday evening from five until eight o'clock at a certain Mr. Harvey's home on Pennsylvania Avenue, Washington, D. C., and one of the subjects considered by them was: "Our agricultural economy, or the means of producing the most abundant and most reciprocal crops, under any given circumstances, without doing things by guess."

In what words could our present need be better expressed?

About 100 years later, Dr. Seaman A. Knapp, the father of agricultural extension work, wrote the "Ten Commandments of Agriculture", the tenth of which reads: "Keep an account of each farm product, in order to know from which the gain or loss arises."

And still about 25 years later, in 1928, I am advised that there were 28 cars of corn shipped out of one Piedmont County at a price which was over \$1.00 per bushel less than the average price returned by hogs for corn in North Carolina that year!

COMBINATION HOG FEEDING DEMONSTRATION.

Conducted By W. O. Gaskins, New Bern, R.F.D. 1

C. E. Faris, County Agent

On May 22, the county agent helped Mr. Gaskins weigh 18 hogs and start them on a self feeder. On that date they weighed 838 pounds.

They were kept on a self feeder until July 27, when they were again weighed and turned on three acres of standing corn to hog it down. During the 66 day period ending July 27, they ate 90 bushels of 65 cent corn for which they paid 83 cents per bushel.

When turned on the corn they weighed 2,577. While harvesting the 96 bushels of corn, they also ate 400 pounds of tankage which cost \$11.00.

The cost of producing the corn was \$62.72 or 65 cents per bushel. The hogs were sold September 23, when they weighed 5,875 pounds, having gained 1,298 pounds during the 58 days they were in the corn field.

While the return for the corn hogged down was only 60 cents per bushel, which is 5 cents less than it cost to produce, that is twice its market value of 30 cents, and the cost of harvesting it was saved; furthermore, there was \$22.40 worth of plant food left on the three acres of land instead of \$14.40 worth removed which would have occurred had the corn been harvested.

If the corn had been harvested at a cost of 12 cents per bushel making it cost 77 cents, and sold at the market price of 30 cents, the loss would have been 47 cents per bushel instead of 5 cents.

Mr. Gaskins states that owing to a dry spell during June the yield was at least eight bushels per acre less than it would have been had the season been normal.

It is through such records as this that we learn the exact financial result of doing certain things in a certain way. County Agent Faris and Mr. Gaskins are due much credit for this, the only demonstration of its kind reported to the Office of Swine Extension during 1931.

In considering the following figures one is impressed by the fact that fertilizer constituted nearly 41 per cent of the cost of producing this corn; the fertilizer cost was 27 cents per bushel.

ITEMIZED FINANCIAL STATEMENTCredit

September 23, 18 hogs, 3,875 pounds @ \$5.28; \$204.57

Debit

Cost of feed May 22 to July 27 \$76.05
May 22, 18 pigs, 838 pounds @ \$5.28; 44.25 \$120.30

Cost Of Standing Corn

Rent of land, 3 acres @ \$5.00; \$15.00 (23.92%)
 Man labor, 99 hours @ 12.5¢; 12.01 (19.15%)
 Horse labor 118 hours @ 7.5¢; 8.86 (14.13%)
 Seed 1.20 (1.91%)
Fertilizer, 2,500 pounds 25.65 (40.89%) \$62.72 (100%)
Tankage in field, 400 lbs. @ \$2.75; 11.00 \$194.02
Return above feed cost of production \$ 10.55

Comparative Return

Cost per acre of corn in crib (estimated) \$24.75 } Loss \$15.15
 Value of 32 bushels @ 30 cents 9.60 }
 Cost per acre of standing corn \$20.91 } Loss \$ 1.73
Returned by hogs 19.18 }
 Loss reduced by hogging, per acre \$13.42

Mr. Gaskins is not alone in suffering this excessive fertilizer cost. Three similar demonstrations conducted during 1930 showed an average fertilizer cost of 29 cents per bushel.

The following figures for the State as a whole are taken from the federal and state census -- read them!

SPECIFIED FARM EXPENDITURES

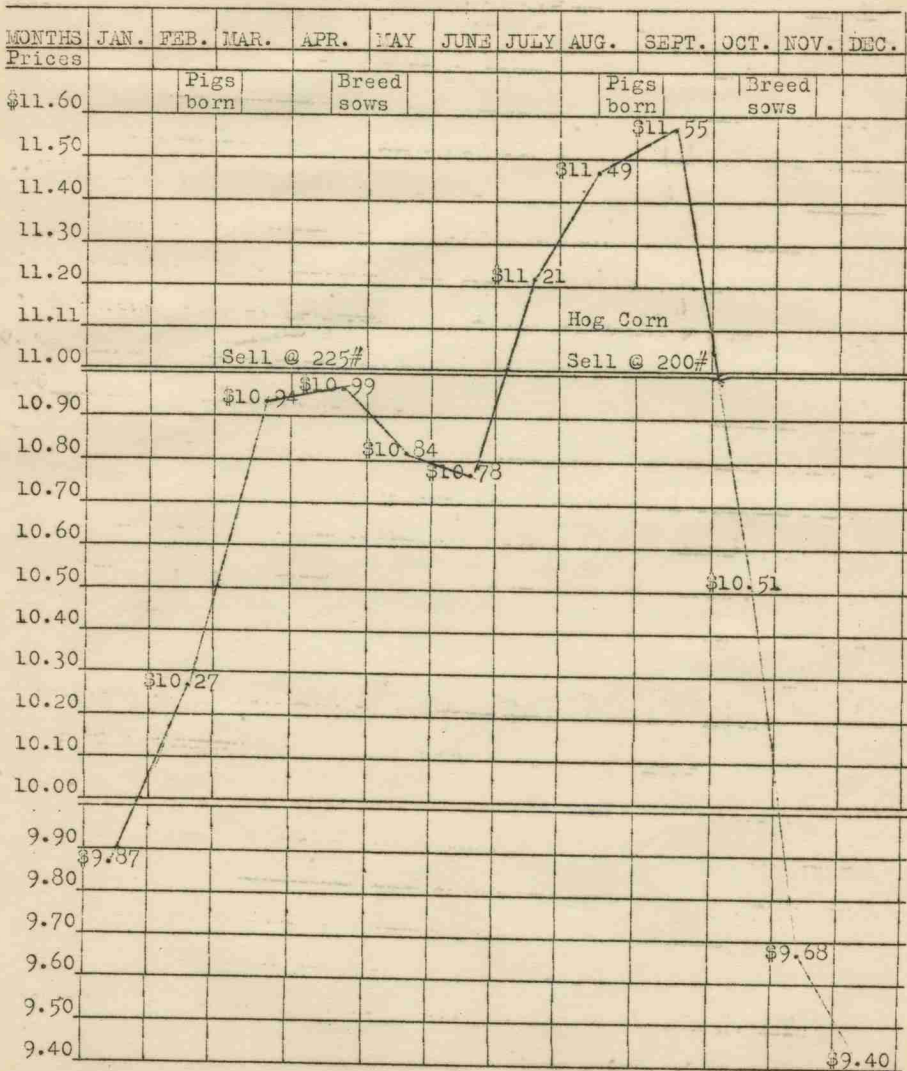
Feed(hay, grain, mill feed, etc...)	\$11,115,763	8,674,786	12,291,850
Fertilizer.....	\$34,686,830	32,001,784	48,796,694
Farm labor, Excl. housework (cash)	\$11,673,938	8,096,125	10,818,456

Of four things we may confidently rest assured, they are:

- (1) It pays to convert corn into pork when it is properly balanced and full fed to good hogs.
- (2) We do not know as much as we should about the economic results of various methods of feeding.
- (3) Unless we learn by keeping records, we shall learn but little more than we already know.
- (4) Just as long as our main reliance for soil improvement consist of a dribble of soybeans in the corn field our outlay for fertilizer will remain enormous.

BREEDING AND MARKETING CHART
AND
SEASONAL TREND OF HOG PRICES.

Average of Twenty-One Years - 1910 to 1930 Inclusive.



At the average of 21 years prices a hard 200 pound hog is worth more in September than an "oily" 300 pound hog is worth in December--Why produce and pay freight on the extra 100 pounds?

During 1930 hogs kept on self feeders from May 1, until August 1, paid \$1.51 for corn the market value of which was \$0.87 per bushel; those which were then turned on new crop corn harvested and paid an average of \$1.38 per bushel for that.

Men who follow the above chart always win in the long run, which is of sufficient importance to justify keeping records.

N. C. STATE COLLEGE OF AGRICULTURE AND ENGINEERING
OFFICE OF SWINE EXTENSION
 STATE COLLEGE STATION, RALEIGH, N. C.

COOPERATIVE EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS

NORTH CAROLINA STATE COLLEGE OF
AGRICULTURE AND ENGINEERING,
NORTH CAROLINA COUNTIES AND
UNITED STATES DEPARTMENT OF
AGRICULTURE, COOPERATING

STATE OF NORTH CAROLINA

EXTENSION SERVICE
SWINE SPECIALIST

Dear Sirs:

The three men in the eastern part of the State who kept the records from which the enclosed computations are made showed a commendable desire for information, and as a result of minor importance they increased the net income from sixteen acres of corn to the substantial extent of \$374.40.

But, in addition to the money, they obtained first-hand knowledge of the comparative profit from corn sold as corn, and corn sold as pork, under the conditions which existed in 1930. That knowledge is an asset of much greater value than the extra money they made while getting it, for the prices used are about the average of such prices during the last twenty years, so the knowledge can be used repeatedly.

Let us face these facts: (1) We are born without knowledge. (2) Nearly all men are either physically or mentally lazy-most of us are both. (3) Excepting only a few simple things which may be learned by observation, knowledge is gained only through the exercise of personal effort. (4) Success as a very general rule is a reflection of knowledge.

These figures are submitted to you for STUDY.

They reveal an opportunity for all who can produce over thirty bushels of corn per acre.

Are YOU in a position to grasp that opportunity? Study the right hand column for the relative cost of various operations; then study the three lots, individually and collectively.

Did you know that the cost of harvesting a large yield of corn may be greater than the cost of preparing the land for it? Or greater than the cost of cultivating it? Why not let hogs harvest some of the corn?

Early spring pigs should be self-fed to a weight of about 120 pounds, then finished in the corn field and sold during September.

Ask for Extension Circular No. 181, then see your county agent and keep records.

W. W. Shay, Swine Specialist
Office of Swine Extension.
N. C. STATE COLLEGE OF AGRICULTURE & ENGINEERING, RALEIGH, N.C.

THE THREE WISE MEN IN THE EAST

How they increased the *profit* on corn 803 per cent and at the same time maintained the fertility of their soil.

(EVERYDAY ECONOMICS)

ITEMIZED COST OF PRODUCING CORN

Prices charged: Labor per hour, man 20c.; horse 10c.; land rent per acre \$7.50.

OPERATION		Lot 1 5 acres Av. 33 bu.		Lot 2 3 acres Av. 46 bu.		Lot 3 8 acres Av. 41 bu.		TOTAL 3 LOTS 16 acres Av. 39.44 bu.		PER CENT of total cost in crib
		Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	
BREAKING	Man	46	\$9.20	47.4	\$9.48	60	\$12.00	153.4	\$30.68	
	Horse	72	7.20	104.4	10.44	110	11.00	286.4	28.64	
	Tractor	5 @ 90c	4.50							
Total			\$20.90		\$19.92		\$23.00		\$63.82	12.24
PLANTING	Man	10	\$2.00	3.6	\$0.72	12	\$2.40	25.6	\$5.12	
	Horse	10	1.00	3.6	0.36	12	1.20	25.6	2.56	
	Seed		1.50		1.80		4.50		7.80	
Total			\$4.50		\$2.88		\$8.10		\$15.48	2.97
CULTIVATING	Man	48	\$9.60	50.4	\$10.08	90	\$18.00	188.4	\$37.68	
	Horse	59	5.90	36.0	3.60	130	13.00	225.0	22.50	
Total			\$15.50		\$13.68		\$31.00		\$60.18	11.55
FERTILIZER	Man	25	\$5.00	13.2	\$2.64	32	\$6.40	70.2	\$14.04	
	Horse	21	2.10	8.4	.84	22	2.20	51.4	5.14	
	Material		62.50		30.00		74.40		166.90	
Total			\$69.60		\$33.48		\$83.00		\$186.08	35.70
Rent of land @ \$7.50			\$37.50		\$22.50		\$60.00		\$120.00	23.02
COST OF STANDING CORN			\$148.00		\$92.46		\$205.10		\$445.56	(85.48)
*Cost to harvest		*	\$19.80	*	\$16.56	*	\$39.36	*	\$75.72	* 14.52
COST IN CRIB			\$167.80		\$109.02		\$244.46		\$521.28	100.00

RECAPITULATION

Total man hours	129	\$25.80	114.6	\$22.92	194	\$38.80	437.6	\$87.52	16.79
Total horse hours	162	16.20	152.4	15.24	274	27.40	588.4	58.84	11.29
Total tractor hours	5	4.50					5.0	4.50	0.86
Total labor		\$46.50		\$38.16		\$66.20		\$150.86	(28.94)
Fertilizer		\$62.50		\$30.00		\$74.40		\$166.90	32.02
Seed		\$1.50		\$1.80		\$4.50		\$7.80	1.50
Rent of land		\$37.50		\$22.50		\$60.00		\$120.00	23.02
COST OF STANDING CORN		\$148.00		\$92.46		\$205.10		\$445.56	(85.48)
*Cost to harvest	*	\$19.80	*	\$16.56	*	\$39.36	*	\$75.72	* 14.52
COST IN CRIB		\$167.80		\$109.02		\$244.46		\$521.28	100.00
Value @ 90c. per bu.		\$148.50		\$124.20		\$295.20		\$567.90	108.94
PROFIT OR LOSS	Loss	\$19.30	Pro.	\$15.18	Pro.	\$50.74	Pro.	\$46.62	8.94

*Estimated @ 12c. per bushel. All other figures from records.

RESULTS OF HOGGING DOWN THE CORN

Instead of harvesting and selling the corn with the results shown on the first page, these three men supplemented the standing corn with fish meal in self feeders and turned hogs on it when it was in an advanced dough stage. The results are shown below:

ITEM	Lot 1 165 bus.	Lot 2 138 bus.	Lot 3 328 bus.	3 Lots 631 bus.	PER CENT
Number of pigs	39	22	59	120	
Number of days	46	49	48	48	
Pork produced, pounds	2,336	1,633	5,126	9,095	
Value of pork	\$274.48	*\$170.61	\$589.49	\$1,034.58	
Cost of selling	19.62	12.12	43.06	74.80	
Net farm value	\$254.86	\$158.49	\$546.43	\$959.78	100.00
Fish meal	30.60	13.60	49.00	93.20	9.71
Return for corn	\$224.26	\$144.89	\$497.43	\$866.58	
Cost to produce corn	148.00	92.46	205.10	445.56	46.42
Profit as pork	\$76.26	*\$52.43	\$292.33	\$421.02	43.87
Net return as corn	Loss 19.30	15.18	50.74	46.62	
The difference	\$95.56	\$37.25	\$241.59	\$374.40	
Per cent increase	@ - * ! - ?	245	476	803	

*One hog, weight 181 pounds, worth \$19.75, died—not included.

COMPARATIVE RETURNS FOR THE CORN

As PORK, THE RETURN WAS:

Gross per acre.....	\$ 54.16
Net per acre.....	26.31
Return per bu.....	1.37
Profit per bu.....	.6672 cents
Return per acre of land.....	\$ 33.81
Per day of man labor in the corn field.....	11.62
Value of plant food remaining.....	148.65

As CORN, THE RETURN WAS:

Gross per acre.....	\$ 35.49
Net per acre.....	2.91
Return per bu.....	.90
Profit per bu.....	.0739 cents
Return per acre of land.....	\$ 10.41
Per day of man labor in the corn field.....	3.07
Value of plant food removed.....	94.65

NORTH CAROLINA STATE COLLEGE OF AGRICULTURE AND ENGINEERING

OFFICE OF SWINE EXTENSION, RALEIGH, N. C.

RESULTS OF HOG FEEDING DEMONSTRATIONS COVERING FIVE YEARS

By W. W. SHAY, *Swine Specialist*

The production of corn for sale as corn is not an attractive proposition; had the farmers of the corn belt sold their grain in its original state, they would have been bankrupt long ago.

A low yield of corn is produced at little profit, and frequently returns less than day wages for the time devoted to its production.

Expensive corn makes expensive pork, therefore no one is advised to raise surplus hogs on land which will not produce thirty bushels or more corn per acre.

Thirty bushels of corn, properly supplemented, will produce 460 pounds of pork which at ten cents per pound will, after the cost of supplemental feed is deducted, return \$40.00 for the corn. Similarly, a fifty bushel yield will return \$67.00 per acre.

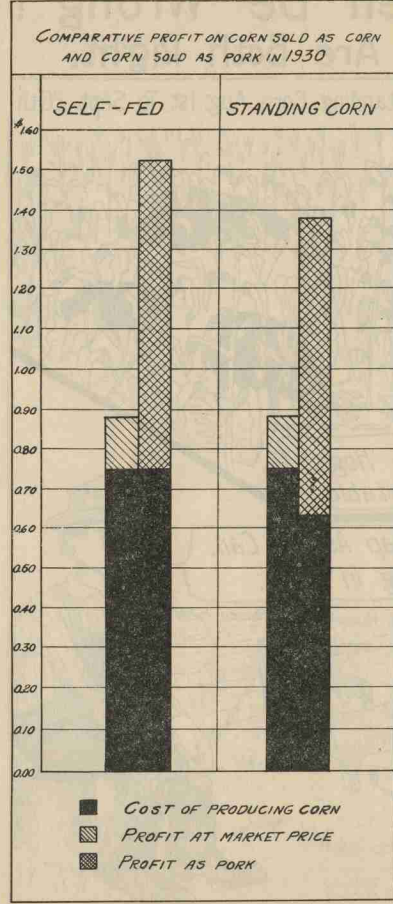
In the aggregate there is considerable corn sold from North Carolina farms each year; the figures on page 4, show that the *profit* on corn costing \$0.75 per bushel to produce was increased over 400% by converting it into pork.

Owing to the fact that four acres of corn can be produced at approximately the same cost as one acre of cotton, the expense and consequent risk per acre cultivated is much less with corn than with cotton.

The prospect for remunerative prices for hogs next August and September is much brighter than it is for cotton or tobacco, but the corn and hog combination requires a much wider knowledge than is necessary to raise cotton.

In the spring of 1928 the price of hogs was \$8.50 and many farmers discontinued feeding—in September of that year the price was \$13.50. Will that mistake be repeated this year?

"To every man and nation comes a moment to decide."



What the Records Show

During the last five years 520 swine feeding demonstrations have been completed in the States. Careful records of the feed consumed by the hogs and the gains made by them have been kept and reported by the county agents.

All feed was charged at the local market price. The results obtained each year are shown below.

Year	Number of Demonstrations	Number of Hogs	Bushels of Corn Fed	Average Local Price	Value as Corn	Cost at 50¢ Per Bushel	*Profit as Corn	RETURN AS PORK		
								Per Bushel	Total Return for Corn	
1930	49	1,048	6,442	\$0.87	\$ 5,576.02	\$ 4,831.50	\$ 744.52	\$1.51	\$ 9,707.61	\$ 4,131.58
1929	45	918	6,552	1.09	7,470.76	5,139.00	2,331.76	1.50	10,260.51	2,779.75
1928	68	1,897	12,871	0.88	11,278.37	9,632.50	1,745.87	1.40	17,988.28	6,689.91
1927	153	3,219	21,122	0.83	17,440.51	15,841.50	1,599.01	1.65	34,803.09	17,362.58
1926	205	4,694	27,703	0.96	26,593.34	19,945.00	6,648.34	2.06	57,585.07	30,691.73
5 years	520	11,776	74,390	\$0.92	\$68,359.01	\$55,289.50	\$13,069.51	\$1.62	\$130,314.56	\$61,555.55

* Based on a production cost of \$0.75 per bushel.

The average profit of \$0.17 per bushel on corn sold as corn was increased to \$0.87 per bushel by converting it into pork. This was not accomplished by simply "keeping hogs," but by full and proper feeding.

NORTH CAROLINA STATE COLLEGE OF AGRICULTURE AND ENGINEERING
OFFICE OF SWINE EXTENSION, RALEIGH, NORTH CAROLINA

Can Ten Thousand Men Be Wrong? Yes, But These Men Are Both Right.

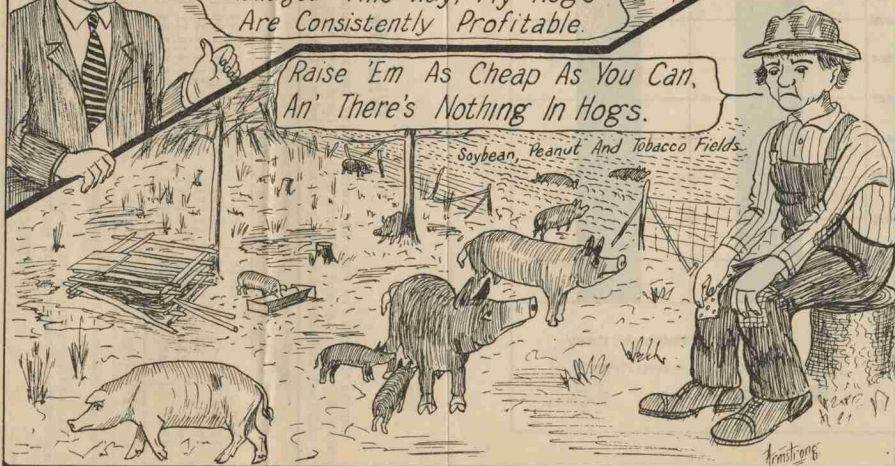
On Self Feeders May 1st. To Aug. 1st.

On Standing Corn Aug. 1st. To Sept. 20th.



*Managed This Way, My Hogs
Are Consistently Profitable.*

*Raise 'Em As Cheap As You Can,
An' There's Nothing In Hogs.*

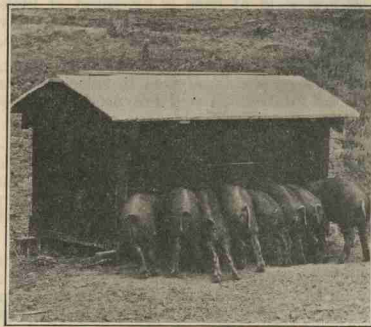


Soybean, Peanut And Tobacco Fields.

February, 1931.

Extension Folder No. 30

Results of Hog Feeding Demonstrations Covering Five Years



MAY 1. OFF WITH A GOOD START

NORTH CAROLINA
STATE COLLEGE OF AGRICULTURE AND ENGINEERING
AND
U. S. DEPARTMENT OF AGRICULTURE, COOPERATING
N. C. AGRICULTURAL EXTENSION SERVICE

I. O. SCHAUB, DIRECTOR
STATE COLLEGE STATION
RALEIGH

DISTRIBUTED IN FURTHERANCE OF THE ACTS OF CONGRESS OF
MAY 8 AND JUNE 30, 1914

SYSTEMATIC FEEDING WHEN PRICES ARE LOW.

Having considered the results of full and constant feeding for maximum production per unit when corn and hog prices are high, let us now illustrate the economic effect of such feeding during a period of low prices such as prevail at present, when hogs serve as a stop-loss for the corn crop

APPROXIMATE COST OF PUTTING 100 POUNDS GAINON HOGS OF AVERAGE QUALITY WITH CORN CHARGED AT VARIOUS PRICES

(Example)

CORN CHARGED AT 30 CENTS PER BUSHEL

<u>Feed</u>	<u>Pounds</u>	<u>Bushels</u>	<u>Price</u>	<u>Cost</u>
Corn	330	5.9 @	\$0.30	\$1.77
Fish meal	25		2.75	.69
Cotton seed meal	25		1.25	.31
Total	380 pounds	cost		\$2.77

With corn charged at 35¢ 100 pounds gain will cost; \$3.07

With corn charged at 40¢ 100 pounds gain will cost; 3.36

With corn charged at 45¢ 100 pounds gain will cost; 3.66

With corn charged at 50¢ 100 pounds gain will cost; 3.95

RETURN PER BUSHEL OF CORN HOGS AT VARIOUS FARM PRICES

(Example)

Farm price of hogs per 100 pounds	\$6.00
Cost of supplemental feed per 100 pounds	1.00
Return for 5.9 bushels of corn, (per bu. 84¢)	\$5.00

RETURN PER BUSHEL OF CORN AT LOWER HOG PRICES

<u>Farm Price of hogs</u>	<u>Return Per Bushel of Corn</u>	<u>Farm Price of hogs</u>	<u>Return Per Bushel of Corn</u>
\$5.50	\$0.76	\$4.50	\$0.59
5.00	0.68	4.00	0.51

Fertilizer Constituents Of Feed To Produce 100 Pounds Gain

Nitrogen	8.36 pounds @ 15¢	\$1.25
Phosphoric Acid	6.33 " 4¢	.25
Potash	1.67 " 4¢	.07
Total	16.36 pounds	\$1.57

AN OPPORTUNITY FOR CO-OPERATION IN EXTENSION WORK

While North Carolina may never become a heavy producer of market hogs, there is no valid reason why the farmers of the state should not become the most efficient feeders of hogs in the United States. The penalty for ignorance of the following law is always exacted.

LIMITED FEEDING VS. FULL FEEDING FOR PROFIT

The following examples are based on the average results of many experiments. Each lot consists of ten pigs which average 65 pounds at the start and are fed for a period of 100 days. Both lots are on a good legume pasture.

Lot No. 1, is self fed corn and tankage, free choice.

Lot No. 2, is fed two pounds of corn and tankage daily per 100 pounds live weight.

The corn is charged at 40 cents per bushel; fish meal at \$50.00 per ton; no charge is made for the pasture. Gains are credited at \$6.00 per 100 pounds.

THE PHYSICAL RESULT.

Lot No.	Weight and Gain				Average daily gain	Total Feed		100 Lbs. Gain	
	Initial weight	Final weight	Total gain	per pig		Corn Lbs.	Tankage Lbs.	Corn Lbs.	Tankage Lbs.
1	650	2,240	1,590	159	1.59	5629	366	354	23
2	650	1,310	660	66	.66	1333	86	202	13

THE ECONOMIC RESULT

Lot No.	Result Per 100 Pounds Gain					Result Per Lot			
	Corn cost	Tankage cost	Both cost	Value of gain	Profit	Value of gain	Cost of feed	Profit per pig	Profit per lot
1	\$2.53	\$0.58	\$3.11	\$6.00	\$2.89	\$95.40	\$49.36	\$4.60	\$46.04
2	1.44	0.33	1.77	6.00	4.23	39.60	11.67	2.79	27.93
STUDY THIS	\$1.09	\$0.25	\$1.34	\$0.00	\$1.34	\$55.80	\$37.69	\$1.81	\$18.11
RETURN PER BUSHEL OF CORN IN LOT 1.									\$ 0.86

COMMENT

Regardless of the prevalent OPINION, which is given widespread publicity by the press, that cost of production governs profit, it is shown above that with the prices used, an increase of 76 per cent in Cost of gain resulting in an increase of 126 per cent in the rate of gain, increased the Profit from a 100 day feeding period 65 per cent.

GRAPHIC HISTORY OF A LIMPING ENTERPRISE

The first demonstration was conducted on a Halifax Farm in 1921; since then there has been over \$25,000.00 worth of hogs shipped from that farm.

The work was started in Beaufort county in 1922 and ran intermittently until 1925 when 512 head were shipped and the present county agent began really pushing the work with the result that there were 8,466 hogs shipped during 1928. Apparently an increase of 36 per cent in the number of feeding demonstrations completed the previous year resulted in an increase of 82 per cent in the number of hogs shipped. These hogs originated on less than 13 per cent of the farms of the county, and the average number of hogs per farm for the 294 farms where they originated was less than 29.

According to the Farm Forecaster, there were 22 other counties which raised a greater acreage of corn, and ten which had more sows of breeding age that year than Beaufort.

There were 38 cars of hogs shipped from Craven county during 1931, and we have no record of any county having shipped more, yet there are 34 other counties reported as having more corn, and 29 as having more brood sows that year than Craven.

RECRUITS TO THE RESCUE

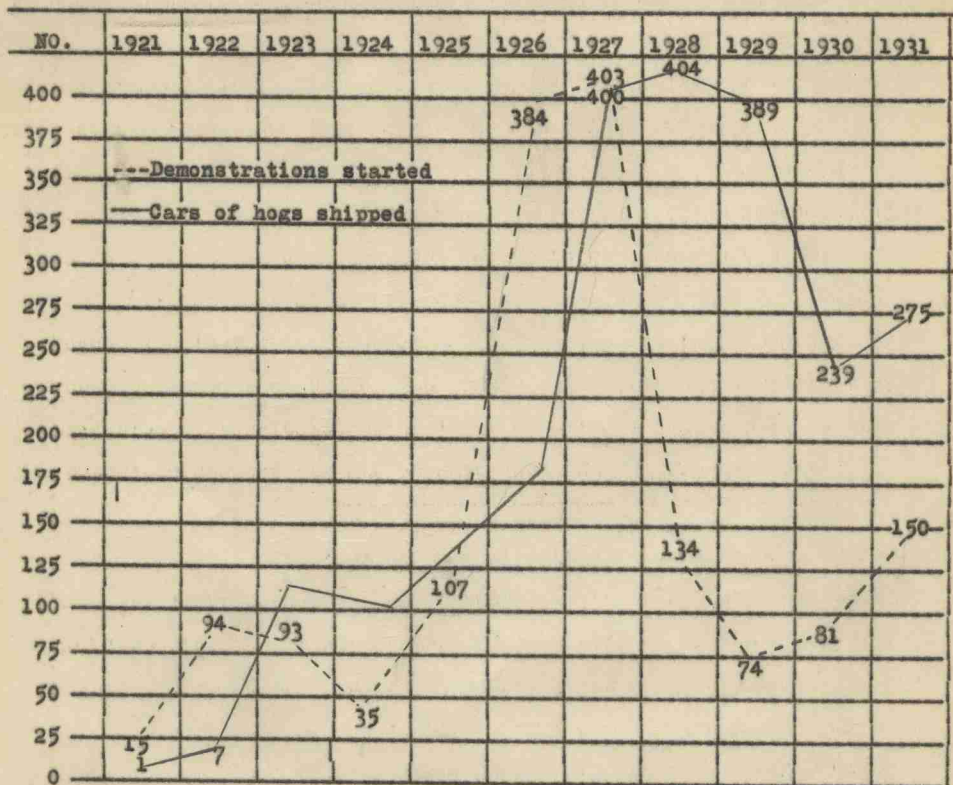
The pioneers by hard work carried car lot shipments of hogs from 40 head, worth \$890,76 in 1921, to 400 cars worth \$562,327.14 in 1927, then they evidently sought new worlds to conquer; and only for the recruits, three of which are represented below, shipments during 1931 would have been many cars less than they were.

In a technical bulletin from Washington we read: "The direct influence of adult result demonstrations bears a negative rather than a positive relationship to total extension accomplishment."

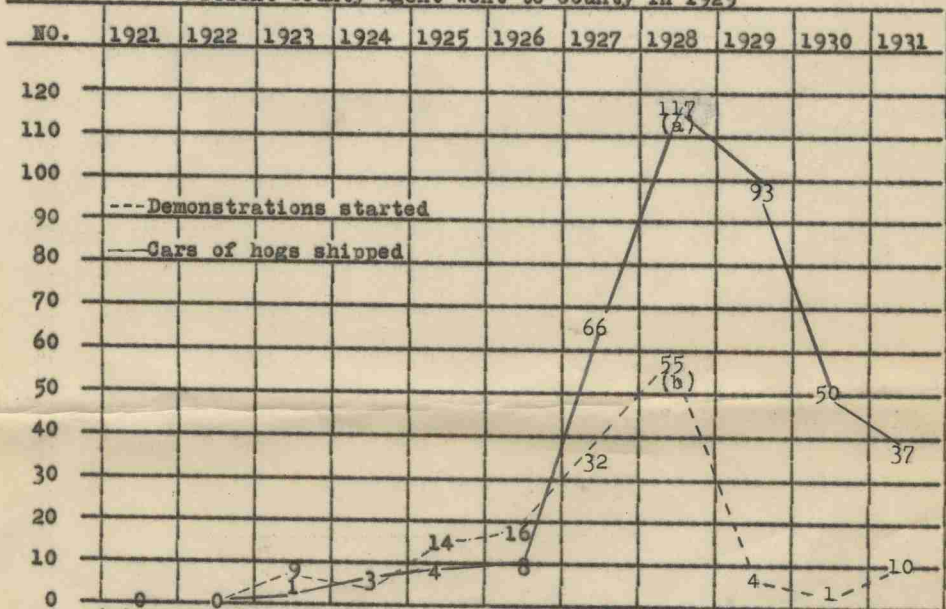
The following charts do not confirm that statement. Is it possible that these five charts, which cover a period of eleven years, represent only a series of coincidences?

Let us not forget that eventually, under the stress of economic necessity, each individual will be required to render a personal account of his stewardship. Time devoted to a study of these curves will be well spent.

NUMBER OF DEMONSTRATIONS STARTED AND NUMBER OF CARS OF HOGS REPORTED

SHIPPED FROM THE STATE ANNUALLY DURING THE ~~LAST~~ ELEVEN YEARS. *shown.*

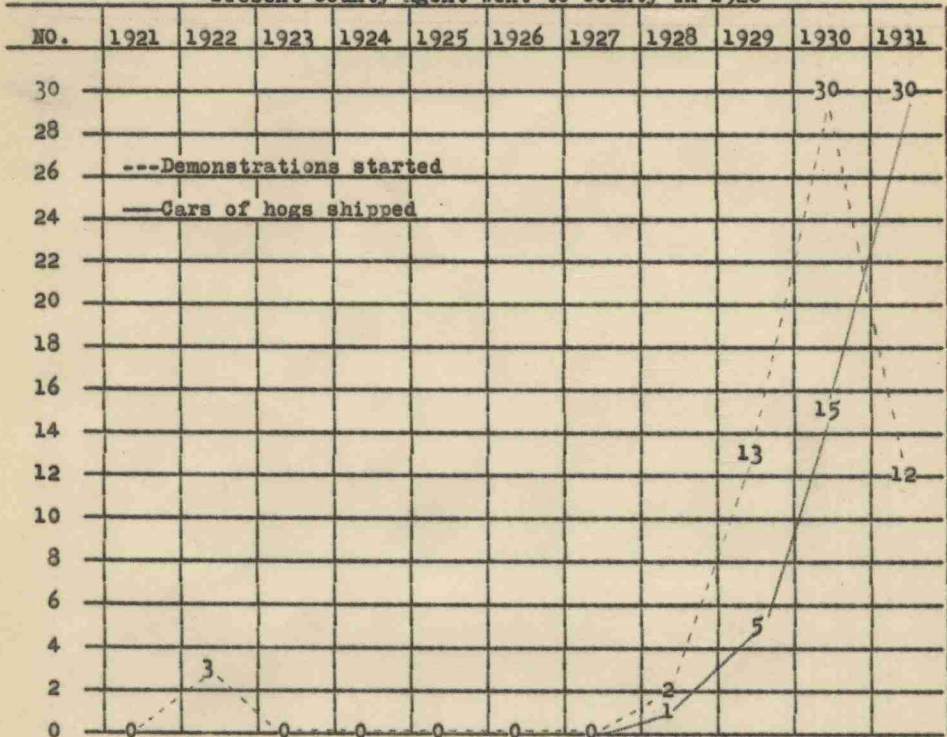
BEAUFORT COUNTY
Present County Agent went to County in 1925



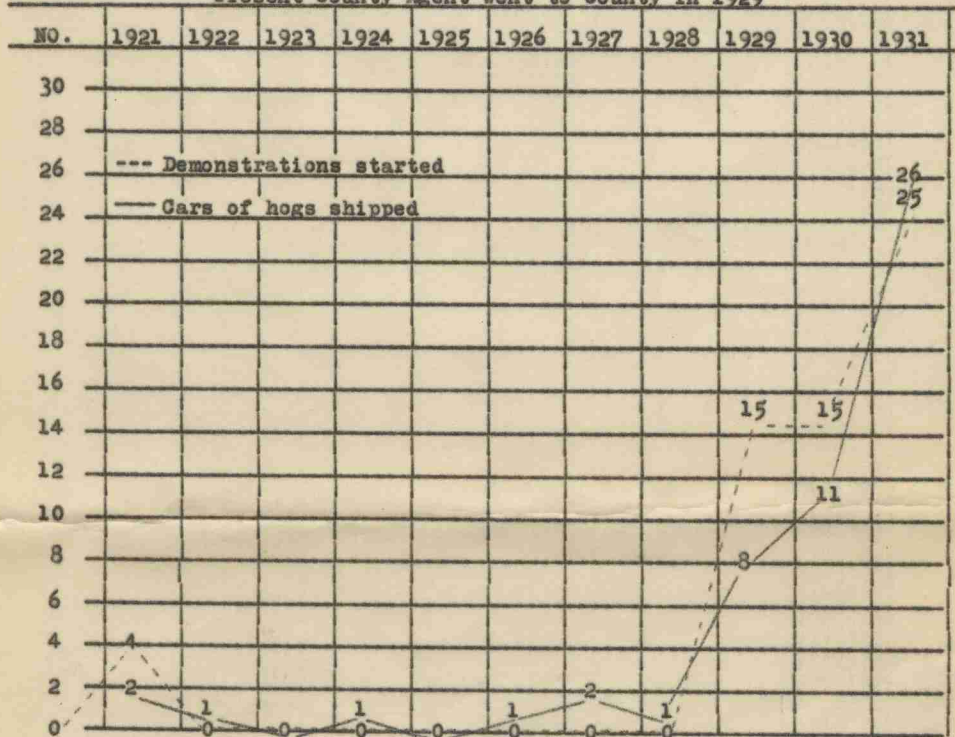
(a) Originated on less than 13% of the farms in the county.

(b) County Agent 41; Vocational Teacher 14.

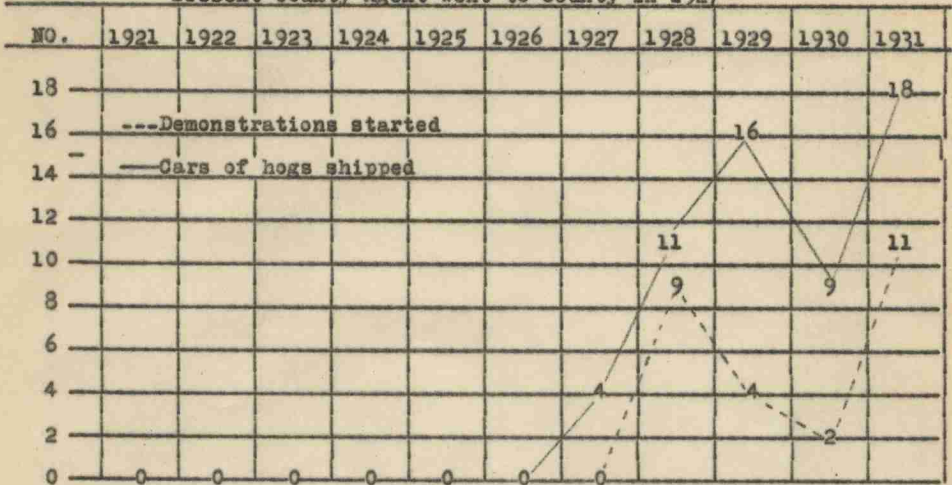
JOHNSTON COUNTY
Present County Agent went to County in 1928



EDGECOMBE COUNTY
Present County Agent went to County in 1929



PITT COUNTY
Present County Agent went to County in 1927



During the last eleven years the entire time of the office of Swine Extension has been spent on an effort to secure the adoption by a certain class of farmers throughout the state, of a consistent system of feeding and marketing hogs.

This system, while contrary to common practice, is based on experimental data from several stations, which has been confirmed by the results of demonstrations which have been completed on several hundred farms in the state.

Checks received by the comparatively few farmers who have shipped hogs during the last five years total TWO MILLION, TWO HUNDRED SEVENTY THOUSAND, FIVE HUNDRED FORTY SEVEN DOLLARS (\$2,270,547.35) as shown by carbon copies of account sales, yet the number of demonstrations completed since the work began in 1921 average slightly less than one per county agent per year!

The farmers of several heavy corn producing counties continue to sell both pigs and corn. Is it reasonable to suppose that all the other lines of extension work which claim attention to the exclusion of swine work in such counties is of greater economic importance than swine work? The object sought through demonstrations is not an increase in the number of hogs raised, but a material increase in the amount, and an improvement in the quality of pork produced annually with the hogs on hand, and a consequent increase in the profit from them, the only outlay necessary being for supplemental feed for the corn grown on the farm.

Form 10 BRESULTS OF 51 HOG FEEDING DEMONSTRATIONS IN NORTH CAROLINA10 COUNTIESNo. Hogs
1058 (Sold Locally)Average Period of 79 Days

1931

No. hogs	Initial weight	Final weight	Total gain for period	No. days fed	Gain per pig	Average daily gain per pig	Total feed consumed	Total cost of feed consumed	Feed per 100# gain	Feed cost per 100# gain	Profit per pig	Value of gains over feed cost Pork @ 7.30
1058	80,244	214,560	134,316	79	126	1.59	489,335	\$6,687.98	363	\$4.98	\$2.95	\$3,129.57

LOCAL PRICESFEED CONSUMED AND PRICES CHARGED

<u>Feed</u>	<u>Pounds</u>	<u>Price</u>	<u>Cost</u>
Minerals	1136		\$ 11.36
Milk	139		3.87
Molasses	720		25.70
Wheat	200 { 3.33 Bu. }	.75	2.50
Barley	2200 { 45.83 " }	.48	22.00
Fish meal	27183	3.28	892.85
Corn meal	14372 (299.41 Bu.)	.78	234.77
Red Dog	8165	1.87	152.76
Cotton S. meal	7074	1.39	98.20
Corn	428146 (7645. Bu.)	.68	5,243.97

TOTALS	489335	\$6,687.98
---------------	---------------	-------------------

FINANCIAL STATEMENTCredit

By 1050 hogs 213,752 lbs. f.o.b. \$15,682.09
(8 " died 808 ")

Debit

To 1058 hogs, 80,244 lbs.; \$5,864.54
To feed for hogs 6,687.98
12,552.52

RETURNS ABOVE FEED COST OF GAINS	\$3,129.57
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Deducting the actual cost of purchased feeds-wheat mill feed and fish meal or tankage, etc.- \$1,209.24 from the value of gains at 7.308 cents per pound 134,316 pounds @ 7.30 cents, \$9,817.55, there remains \$8,608.31 as return for the 7944.41 bushels of corn fed, or \$1.08 per bushel.

How much does it cost you to produce a bushel? At 75 cents, the profit would be \$2,650.01

The fertilizer, or plant food value of the above feeds, which remains on the farm is \$1,833.75

Form 10 B

RESULTS OF 48 HOG FEEDING DEMONSTRATIONS IN NORTH CAROLINA10 COUNTIESNo. Hogs
1148 (Shipped)Average Period of 75 Days

1931

No hogs	Initial weight	Final weight	Total gain for period	No. days fed	Gain per pig	Average daily gain per pig	Total feed consumed	Total cost of feed consumed	Feed per 100# gain	Feed cost per 100# gain	Profit per pig	Value of gains over feed cost Pork @ 7.24
1148	101,150	230,198	129,048	75	112	1.49	492,986	\$6,799.80	382	\$5.27	\$2.22	\$2,545.58

LOCAL PRICESFED CONSUMED AND PRICES CHARGED

Feed	Pounds	Price	Cost
Cotton S. meal	5,000	1.41	\$ 70.50
Fish meal	28,473	3.22	917.08
Corn meal	2,377 (49.52B)	.60	29.71
Red Dog	10,982	1.73	190.76
Corn	446,154 (7967 B.)	.70	5,591.75

FINANCIAL STATEMENT

<u>Credit</u>		
By 1144 hogs, 229,663 lbs.		\$18,105.67
(4 " died 535 lbs.)		
<u>Debit</u>		
To 1148 hogs, 101,150 lbs.	\$7,363.89	
To feed for hogs	6,799.80	
To frt. & yardage	955.14	
To commission	343.83	
To other expense	60.04	
To grade deduction	37.39	\$15,560.09

TOTALS	492,986	\$6,799.80	RETURNS ABOVE FEED COST OF GAINS	\$ 2,545.58
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Deducting the actual cost of purchased feeds-wheat mill feed and fish meal or tankage, etc.-\$1,178.34 from the value of gains at 7.2417 cents per pound 129,048 pounds @ 7.24 cents, \$9,345.38 there remains \$8,167.04 as return for the 8016.52 bushels of corn fed, or \$1.02 per bushel.

How much does it cost you to produce a bushel? At 75 cents, the profit would be \$2,154.65.

The fertilizer, or plant food value of the above feeds which remains on the farm is \$1,888.77.

Form 10 B

RESULTS OF 99 HOG FEEDING DEMONSTRATIONS IN NORTH CAROLINA15 COUNTIESNo. Hogs
2206Average Period of 77 Days

1931

No. hogs	Ini- tial weight	Final weight	Total gain for period	No. days fed	Gain per pig	Average daily gain per pig	Total feed consumed	Total cost of feed consumed	Feed per 100# gain	Feed cost per 100# gain	Profit per pig	Value of gains over feed cost Fork @ 7.28
2206	181,394	444,758	263,364	77	119	1.54	982,321	\$13,487.78	373	\$5.12	\$2.57	\$5,675.15

LOCAL PRICESFEEED CONSUMED AND PRICES CHARGED

<u>Feed</u>	<u>Pounds</u>	<u>Price</u>	<u>Cost</u>
Milk	139		\$ 3.87
Minerals	1136		11.36
Molasses	720		25.70
Wheat	200 (3.33 Bu.)	.75	2.50
Barley	2200 (45.83 ")	.48	22.00
Cotton S.M.	112074	1.39	168.70
Fish meal	55656	3.25	1809.93
Corn meal	16749 (349. Bu.)	.76	264.48
Red Dog	19147	1.79	343.52
Corn	874300 (15612 Bu.)	.69	10835.72

FINANCIAL STATEMENTCredit

By 2194 hogs sold, 443,415 lbs. \$33,787.76
(12 hogs died, 1,343 lbs.)

Debit

To 2206 hogs, 181,394 lbs. \$13,228.43
To feed for hogs 13,487.78
To frt. & yardage 955.14
To commission 343.83
To other expense 60.04
To grade deduction 37.39
\$28,112.61

TOTALS	982321 (15,961)	\$13487.78	RETURNS ABOVE FEED COST OF GAINS	\$ 5,675.15
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Deducting the actual cost of purchased feeds-wheat mill feed and fish meal or tankage, etc.-
\$2,387.58 from the value of gains at 7.28 cents per pound 263,364 @ 7.28 cents, \$19,162.93, there
remains \$16,775.35 as return for the 15,961 bushels of corn fed, or \$1.05 per bushel.

How much does it cost you to produce a bushel? At 75 cents, the profit would be \$5,066.35

The fertilizer, or plant food value of the above feeds which remains on the farm is \$3,722.52

REPORTED CARLOT SHIPMENTS OF HOGS FROM NORTH CAROLINA

Form 12

COUNTY

COUNTY AGENT

DATE

BY COUNTIES

NOVEMBER 30, 1930 TO DECEMBER 1, 1931

County	No. cars	No hogs	Weight	Price	Amount	Freight	Com.	Grade deduction	Check	Net price	Selling cost	Average weight	Other expense
Beaufort	34	2540	525130	7.32	33473.72	1234.83	464.38	23.01	36681.50	6.98	.32	206	
Brunswick	1	75	15910	8.10	1288.71	104.90	24.80	48.76	1110.25	6.98	.81	212	
Carteret	2	140	30040	7.25	2179.87	154.39	42.40	68.92	1914.16	6.37	.65	214	
Columbus	2	177	31320	8.46	2649.14	225.46	48.04	246.28	2129.36	6.80	.87	176	
Craven	38	2406	469841	7.50	35281.80	1928.85	675.52		32393.94	6.89	.61	195	283.49
Cumberland	8	515	106435	7.73	8232.04	437.45	164.65		7629.94	7.17	.56	206	
Duplin	13	910	186734	7.80	14566.95	920.62	290.18	95.62	13232.53	7.08	.67	205	28.00
Edgecombe	26	1770	343014	7.04	24522.65	531.06	205.52		23736.81	6.82	.22	197	49.26
Halifax	7	510	86270	7.83	6755.09	259.56	133.50	115.16	6246.87	7.24	.46	169	
Hyde	2	145	27510	7.97	2198.02	164.58	43.96		1989.48	7.23	.76	189	
Johnston	23	1660	317605	7.94	25213.43	1365.88	502.80	94.85	23082.64	7.27	.64	191	167.26
Jones	11	906	165980	7.70	12776.08	813.35	257.10		11705.63	7.05	.65	183	
Lenoir	3	217	43880	8.00	3513.78	163.72	70.26		3279.80	7.47	.53	202	
Martin	1	75	14075	8.05	1133.57	59.90	22.67		1051.00	7.47	.58	187	
Northampton	1	31	4435	7.73	342.61	26.45	6.94	21.52	287.70	6.49	.75	143	
Onslow	22	1533	306403	7.83	23993.79	1674.15	479.61	22.62	21710.86	7.08	.74	193	106.55
Pamlico	13	948	192600	7.40	14262.28	876.14	284.80	22.27	13079.07	6.79	.60	203	
Pender	12	886	175510	7.95	13961.64	1145.44	279.23	382.98	11910.24	6.78	.95	198	243.75
Pitt	5	387	80450	7.61	6125.21	198.24	85.27		5841.70	7.26	.35	207	
Sampson	3	230	40645	8.25	3352.79	244.79	65.39	101.23	2936.38	7.22	.78	176	5.00
Washington	3	195	45095	7.85	3538.97	192.56	70.99		3275.42	7.26	.59	231	
Wayne	2	163	30820	8.40	2588.22	182.54	51.74		2303.94	7.48	.92	189	50.00
TOTALS	232	16469	3244762	7.61	246950.36	12904.86	4269.75	1313.22	227529.22	7.01	.56	197	933.31

Weight per 100 lbs. \$ 0.3977

Grade deduction per 100 lbs. \$ 0.04

Dockage

REPORTED TRUCK SHIPMENTS OF HOGS FROM NORTH CAROLINA

20

Form 12

~~COUNTY~~

~~COUNTY~~

DATE

BY COUNTIES

NOVEMBER 30, 1930 TO DECEMBER 1, 1931

County	No hogs	Weight	Price	Amount	St. vd. chgs.	Com.	Grade deduction	Check	Net price	Selling cost	Average weight	Other expense
Beaufort	169	32,551	\$7.33	\$ 2,386.43	\$ 26.03	\$ 47.54	\$ 9.24	\$2,303.62	\$7.07	\$.23	192	\$
Bertie	43	9,155	7.60	696.41	5.50	13.92		676.99	7.39	.21	213	
Bladen	19	2,955	8.11	239.57	1.90	4.70	4.40	228.57	7.74	.22	155	
Brunswick	408	77,770	7.39	5,746.49	68.06	112.61	115.61	5,450.21	7.01	.23	190	
Carteret	51	10,085	5.75	579.88	6.70	11.78		561.40	5.57	.18	198	
Duplin	17	3,860	7.20	277.81	18.04	5.44	6.03	248.30	6.43	.61	227	
Halifax	218	43,420	7.48	3,250.32	38.05	64.09	45.84	3,102.34	7.14	.24	199	
Hyde	138	31,485	6.96	2,193.73	24.75	45.22	1.64	2,122.12	6.74	.22	228	
Johnston	469	90,050	7.53	6,780.08	68.70	135.71		6,575.67	7.30	.23	192	35.44
Lenoir	15	3,480	8.13	282.84	3.10	5.65		274.09	7.88	.25	232	
Northampton	85	14,465	7.85	1,136.68	61.30	23.13	5.00	1,047.25	7.24	.58	170	40.00
Onslow	52	7,950	8.22	653.85	8.40	13.08		632.37	7.95	.27	152	
Pamlico	115	28,040	6.60	1,851.96	19.43	36.63	20.74	1,775.16	6.33	.20	244	
Robeson	118	24,665	7.59	1,872.92	17.40	37.45		1,818.07	7.37	.22	209	139.69
Sampson	15	3,035	8.40	254.94	2.50	5.14		247.30	8.15	.25	202	
Scotland	6	1,320	8.25	108.90	.60	2.18		106.12	8.04	.21	220	
Washington	22	5,555	6.10	339.27	3.80	6.79		328.68	5.91	.19	252	41.54
Wayne	83	16,020	7.86	1,259.58	13.77	25.21		1,220.60	7.62	.24	193	
Wilson	56	11,395	7.98	910.30	6.40	18.21		885.69	7.77	.21	203	
TOTALS	2,099	417,256	7.38	30,821.96	394.43	614.48	\$ 208.50	\$29604.55	\$7.09	\$.24	199	\$256.67

Freight per 100 lbs. \$

Grade deduction per 100 lbs. \$ 0.05

Dockage

REPORTED CARLOT SHIPMENTS OF HOGS FROM NORTH CAROLINA

Form 12

GHEBNEY

COUNTY AGENT

DATE

21

BY MONTHS NOVEMBER 30, 1930 TO DECEMBER 1, 1931

Month	No. cars	No hogs	Weight	Price	Amount	Freight	Com.	Grade deduction	Check	Net price	Selling cost	Average weight	Other expense
January	2	123	22,000	\$ 8.47	\$ 1862.48	\$ 72.10	\$ 37.25	\$	\$ 1753.13	\$ 7.97	\$.50	178	\$
February	16	1087	245,670	7.46	18327.82	1014.27	334.73	90.44	16859.79	6.86	.56	226	28.59
March	54	4007	842,979	7.96	67145.92	3492.58	1243.42	176.73	62062.88	7.36	.58	210	170.31
April	104	7444	1419,267	7.94	112786.29	6311.28	2105.61	1004.50	102752.06	7.24	.63	190	612.84
May	17	1200	232,471	7.20	16730.23	639.29	209.80	41.55	15812.95	6.80	.38	193	26.64
June	6	381	67,135	6.16	4136.52	196.07	38.63		3883.66	5.78	.38	176	18.16
July	3	184	31,551	7.54	2380.05	47.60	9.98		2316.35	7.34	.20	171	6.12
August	4	288	54,834	7.07	3876.15	80.40	21.97		3770.72	6.88	.19	190	3.06
September	21	1413	263,950	6.12	16178.53	1051.27	268.36		14810.12	5.61	.51	187	48.78
October	3	189	34,663	5.49	1905.64				1894.42	5.46	.03	183	11.22
November	2	153	30,242	5.36	1620.73				1613.14	5.33	.03	197	7.59
TOTALS	232	16469	3244,762	\$ 7.61	\$ 246950.36	\$ 2904.86	\$ 4269.75	\$ 1313.22	\$ 227529.22	\$ 7.01	\$.56	197	\$ 933.31
		Freight per 100 lbs. \$ 0.3977		Grade deduction per 100 lbs. \$ 0.04		Dockage							

TOTAL REPORTED SHIPMENTS OF HOGS FROM NORTH CAROLINA

Form 12

COUNTY AGENT

DATE

BY MONTHS

NOVEMBER 30, 1930 TO DECEMBER 1, 1931

Month	No hogs	Weight	Price	Amount	Freight	Com.	Grade deduction	Check	Net price	Selling cost	Average weight	Other expense
January	238	46155	\$ 8.23	\$ 3,800.39	\$ 90.15	\$ 74.61	\$ 70.37	\$3565.26	\$7.72	\$.36	194	\$
February	1228	272485	7.48	20,397.08	1,033.17	374.49	171.56	18789.27	6.90	.52	222	28.59
March	4474	946554	7.96	75,357.63	3,587.02	1407.09	212.74	69980.47	7.39	.55	211	170.31
April	7964	1515907	7.94	120,344.17	6,440.88	2258.41	1015.54	110016.50	7.26	.61	190	612.84
May	1500	289721	7.20	20,880.56	687.29	292.81	41.55	19832.27	6.85	.35	193	26.64
June	430	77505	6.17	4,781.32	203.37	51.54		4508.25	5.82	.35	180	18.16
July	211	37161	7.41	2,755.75	52.30	17.29	9.96	2670.08	7.18	.20	176	6.12
August	341	66149	7.09	4,689.57	86.90	38.22		4561.39	6.90	.19	194	3.06
September	1683	314711	6.18	19,467.19	1,092.50	334.32		17991.59	5.72	.46	187	48.78
October	324	62118	5.62	3,495.88	22.88	31.81		3429.97	5.52	.10	192	11.22
November	175	33552	5.37	1,802.78	2.83	3.64		1788.72	5.33	.04	191	7.59
TOTALS	18568	3,662,018	7.58	277,772.32	13,299.29	4884.23	1,521.72	257133.77	7.02	.52	197	933.31

Freight per 100 lbs. 0.36

Grade deduction per 100 lbs. 0.04

Dockage

STATISTICAL REPORT OF ACTIVITIES

Name	Articles written	No Days in field	Visits to -			Meetings		Letters written	Office calls	Travel	
			Agents	Demonstrations	Others	No.	Attendance			Auto	Rail & Bus
W. W. Shay	15	63	45	42	221	39	1,052	602	?	1,412	5,763
*W. V. Hays	4	81	46	108	313	28	1,691	87	97	5,106	6,004
Total	19	144	91	150	534	67	2,743	689	97	6,525	11,767

*Covers 7 months - December 1, to June 30, when transferred to County Agent work.

How Time Is Spent In The Office

During the year I had 7 holidays, 4 days sick leave and 14 days annual leave; the balance of the time -- 225 days -- being spent in the office. The questions: Can so much time be profitably spent in the office? and if so, in what way? are natural ones.

The answer to the first question is: It can. The basic facts covered by this report entail a great deal of figuring, the most of which is done by the secretary, but the answers to many inquiries regarding the comparable value of various feeds require considerable computation. The results of different methods of feeding; the comparative net return from the utilization of various crops, and different methods of selling are studied, not by superficial thinking about them, but by actual analysis with figures on paper. As a result some previous misconceptions which are surprising in character, and which when followed entail an appalling sacrifice of potential profit, have been uncovered.

In some cases, facts disclosed by such study, being contrary to common belief, are unwelcome in the field. An example of such a fact may be found under the heading: "The Economic Result", on page 11.