ANNUAL REPORT OFFICE OF SWINE EXTENSION

N. C. State College of Agriculture and Engineering

State College Station, Raleigh, N.C.

1925

W. W. Shay, In Charge. W. V. Hays, Field Agent.

"1925 Program of Work."

"It is now pretty thoroughly understood that there is a serious shortage of hogs in the United States.

The present price of corn practically insures heavy planting of that grain, and should the coming season prove normal there will doubtless be a heavy crop of corn in the fall of 1925, should this occur, the shortage of hogs would result in a wide corn and hog ratio.

In order to profit by this condition the farmer must have hogs through which to convert his corn into pork.

For that reason, every effort of this office will be exerted to increase the number of sows bred during the coming spring - preferably during April. With that purpose in view, Extension Circular No. 16 has already been issued for immediate distribution, and copy is being constantly supplied for the press.

It is hoped that earnest effort will be made by the county agents to increase the number of sows bred during the spring of 1925 by 50% over the number bred last spring, and this office will be glad to assist in any way possible."

"Projects"

"Project No. 19. Hog Feeding Demonstrations.
Inasmuch as the feeding of hogs for the maximum of profit is an operation not understood by a vast majority of the best farmers of the state, and profit from feeding hogs on a commercial scale, depends not only upon the proper feeding but also upon the timely marketing of hogs - both of which are easily demonstrated - the hog feeding demonstration will continue to be our major project.

In connection with this project, however, it is suggested that prior to September 1st, 1925, hog feeding demonstrations be limited to farms where there is sufficient corn to complete such demonstrations as are started.

The North Carolina Farmer Who Sells Corn is Blind to His Opportunity."

In addition to the above mentioned major project our 1925 plan of work included four other projects;

No. 20 Ton Litter Contest.

No. 21 Register of Merit for Swine.

No. 22 Consignment Sales of Purebred Swine.

No. 23 Cooperative car lot shipments.

In project No. 20 there were seven litters entered, one litter of 12 pigs raised by Mr. W. C. Wood of La Grange weighed 2722 pounds at the age of 180 days.

Credit for the above is due county agent C.M. Brickhouse of Kinston.

Only one sow was entered in project No. 21 during the year; she failed to qualify with her first litter.

Conditions did not justify pushing project No. 22.

Project No. 23 has been worked both ways and assistance has been given county agents in helping farmers sell fifteen cars of hogs; most of which were owned by more than one man.

Assistance has also been rendered in the purchase of feeders by farmers, such assistance being limited in most cases to information as to where they could be bought, advice relative to proper handling and feeding, etc.

Hog Feeding Demonstrations

The Major Project - How Conducted

Believing that success depends upon the number of things done, rather than upon the number started, an effort has been made to simplify as far as possible the method of conducting hog feeding demonstrations. This is done with a view to relieving the county agent and demonstrator of all the work (such as figuring and keeping records) possible - to the end that more such demonstrations may be conducted.

The extent to which the work developed in 1922 made the use of forms for conducting it of great value.

The installation of a Monroe calculating machine last year speeded up operations considerably, and during the three or four months prior to the two sales periods - April and September- the volume of reports of weights coming into the office made it imperative that one man be in the office almost constantly for the purpose of making out new feeding schedules, computing rate and cost of gains, issuing reports of same to the farmer-demonstrator,

Agent in charge, Office of Assistant Director, District Agent in whose territory the demonstration is conducted and filing for future reference.

In addition to this use of the results of demonstrations, extracts from them are worked into circular letters to a large mailing list, and also used in copy for the press.

From time to time circular letters are sent out giving: Cold Stroage Holdings; Receipts and Disposition of Livestock at Public Stockyards; and semi annually, Results of the Pig Survey are included.

Whenever existing conditions indicate that certain immediate action on the part of the farmers will result in increased profit, information relative to such conditions is made public.

Extension folder number 16 and The April News Letter, copies of which are attached, illustrate such action.

In considering the work of the Office of Swine Extension, it should be constantly born in mind that the result aimed at is not a sudden increase in the swine population of the state, but the adoption of a system of handling hogs which will result in greatly increased profit.

This system has been thoroughly proven to be much more profitable than the customary methods throughout the state.

It was believed that the proof of greater profit from this system, through demonstrations, would, in many localities result in an increased number of hogs.

As an indication of the soundness of this belief, the experience of Beaufort County is cited.

Measured from the standpoint of both length of time and number and size of demonstrations conducted in the 33 counties participating, Beaufort County heads the list of counties in the state conducting feeding demonstrations.

In 1921 Mr. B. T. Leppard, county agent in Beaufort county, started a few such demonstrations; in 1922 he increased the number to 14 demonstrations, including 128 head of hogs.

Mr. Leppard resigned to take up cooperative marketing work, and Mr. R. W. Risher who succeeded him continued the work in Beaufort County.

During 1925 Mr. Risher started 14 demonstrations, including 312 head of hogs; 11 of these demonstrations including 242 head of hogs were completed.

The average decrease in the swine population of the other 99 counties of the state during the five year period from January 1, 1920 to January 1, 1925 was 2,825 or 22.46 per cent.

In Beaufort county, during the same period, there was an increase of 8,437 head, or 32.49 per cent.

Omitting two states for reasons cited (See Reasons Why North Carolina Suffered Least Decrease, which is attached) North Carolina ranks first, in point of slow percentage of decrease during the five year period mentioned.

The attached mimeographed subject matter, will, it is thought, explain the system of feeding and marketing hogs in such a manner as to produce a maximum volume of production per unit, and per acre of land employed for the purpose; and provide a prime finished product for sale at a time of the year when the market price

is usually at or near its peak for the season - April and September.

The attached Abstract of Results gives a brief summary of the work during the last fiscal year; details of each demonstration are on file in the office.

Organization For Conducting Project No.19

It is thought that an understanding of the organization for conducting this project may be illustrated by the use which has been made of several forms today, making use of the forms for the purpose.

Attention is directed to the small amount of correspondence necessary to conduct considerable work, thus leaving more time for other work.

The following letter of three lines gives all the information necessary to enable us to make out a feeding schedule for Mr. Hocutt's 16 pigs, refers to another demonstration for which we sent a schedule yesterday, and expresses an intention of being present at a meeting in another county next week, at which material to be made use of is attached, "Hogs as a Source of Income in Eastern North Carolina."

"Dear Mr. Shay:
Send feeding schedule to Mr. J. D. Hocutt, Burgaw, for 16 pigs average weight 21.5 lbs. See you next week I guess. Please send Laniers schedule as soon as possible.
Very truly yours,
W. H. Robbins,
County Agent."

The attached Form 9 left on the next mail to the four parties referred to in the last line on page 3 and the first three lines on page 4.

In addition to the original of Form 9, the farmer demonstrator is also sent Form32 . (attached).

Thus a new demonstration is started.

A Form 8, copy of which is attached, came from another county on the same mail and gives us all the information necessary to enable us to fill out a Form 9, as above, and Form 10, attached, which shows: Rate and cost of gain; feed consumption; comparative and actual financial results; returns per bushel of corn and value of plant food remaining on the farm as a result of the feeding.

A copy of this Form 10, also goes to: the farmer demonstrator, the county agent, the Assistant Director of Extension and the District Agent in whose district the demonstration is located, immediately and as soon as they can be mimeographed 100 copies will be sent the county agent for use in the field.

Prompt Results In Davidson County.

On February 10, 1925 Field Agent W. V. Hays assisted County Agent C. A. Sheffield of Davidson County in starting four feeding demonstrations which included a total of 23 hogs.

These demonstrations were handled as described above, and the results given more than the average amount of publicity through the distribution of mimeographed copies of Form 10, and the local papers.

By November 30, he had started 20 demonstrations, ten of which had been completed, the 67 hogs having been sold for $1,642.66

making a return of $5.35 per 100 pounds gain over the cost of feed at local prices, and returning $2.27 per bushel for the 428.63 bushels of corn eaten by them.

Nine of the other ten demonstrations started were still running November 30, only one of the twenty having lapsed.

Mr. Sheffield now has three car loads of hogs on feed, and states that farmers besiege him for help along that line.

Character of Correspondence

A gradually increasing percentage of our correspondence is related to the economic results of various phases of the operation of feeding and marketing hogs.

The answers to such letters, in order to be made clear and easily understood, require some figuring based on the current prices of the various classes and grades of hogs, and a conservative estimate of future prices.

This, of course, requires some time, and makes necessary an understanding of factors which will influence future prices, as well as familiarity with the cost of producing gains under conditions existing where the proposed feeding is to be conducted. Such information is not secured and kept up to date without the expenditure of a little time devoted to study. Two illustrations of such inquiries and their answers follow:

A farmer from Stantonsburg writes to ask what he can afford to pay for feeder pigs, and the average weight of pigs which will be most profitable to buy in November.

Only the last paragraph and final figures of the full page, single spaced, answer are given:

"xxxFor your information and for the purpose of enabling you to do a little figuring of your own I am giving an example below based on the figures already mentioned and giving no credit whatever for such feeds as these pigs may glean from the fields.

	Debit.		
"Value of 200 lbs. April 1, @ $12.00			$24.00
Cost of pig, 50 lbs. @ 14 cts.	$7.00		
Cost of gain of 150# @ $7.00	10.50		17.50
Profit above feed cost			$ 6.50"

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A farmer from Jeffersnn writes:

"We have 85 pigs, 60 of which will average 150 pounds February 1. Under present prices of feeds, and considering the market outlook, do you think it would pay to feed these pigs longer than February first?"

The following is quoted from a full page single spaced letter in which we advised feeding these pigs to a weight of 225 pounds by March 15th.

	Debit		
"Value of hog Mar. 15th, 225 lbs. @ $13.00			$29.25
Value February 1, 150# @ $13.40	$20.10		
Cost of gains 75# @ 7.50	5.63		25.73
Profit over feed cost of gains			$ 3.52

Estimated additional profit on 85 head $299.20"

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It will be noticed that in the answer to the first letter the price April 1, is estimated at $12.00. This letter was written in November; by January 16, when the second party was written we felt safe in estimating the price at $13.00.

It will also be noted that the feed cost of gains in the first letter was quoted at $7.00 per 100 pounds, while in the last

letter gains were charged at $7.50 there are two reasons for this.

In the latter case the pigs are heavier and feed consumption per 100 pounds gain will be somewhat greater than in the case of the smaller pigs; also the local price of corn is about ten cents per bushel higher in the locality where the last farmer is located than it is where the first farmer lives, although neither farmer mentioned the local price of corn.

ATTENTION IS HEREBY CALLED TO THE FACT THAT THE PRESENT STATUS OF THE SWINE WORK OF THE STATE IS ENTIRELY DUE TO THE FACT THAT THE PROPER FEEDING AND SEASONAL MARKETING OF HOGS HAS BEEN PROVEN PROFITABLE BY ACCURATE RECORDS OF THE RESULTS OF DEMONSTRATIONS; AND THAT IN ORDER TO GAIN HEADWAY, OR EVEN MAINTAIN SUCH GROUND AS HAS BEEN GAINED, IT IS IMPERATIVE THAT SUCH RECORDS BE KEPT AND GIVEN PUBLICITY.

ONLY IN THIS WAY CAN THE ENTERPRISE BE STABILIZED THROUGH A PERIOD OF LOWER PRICES.

The Outlook For 1926

Owing to the prospect for exceptionally good prices for hogs during the coming year, the outlook for this work is very bright indeed.

Plans are now being made for a campaign to encourage the hogging down of corn next summer.

Condensed Summary Of Activities

Statistical Summary

	Shay	Hays	Total
Visits to Agents (some duplicates)	19	194	213
Visits to demonstrations	44	338	382
Visits to farmers	?	1,464	1,464
Meetings	6	40	46
Attendance	345	2,209	2,554
Letters written	800	1,122	1,922
Circular letters	7		7
Office consultations	?	241	
Miles traveled - auto	2,775	10,814	13,589
Miles traveled - rail	2,251	9,639	11,890
Articles written for press	43	8	51
Extension circulars	$16 , 151		2
Fair exhibits		3	3
Days vacation	11	8	19
Days sick		2	
Days in office	222		
Days in field	45		
Holidays	8		

Tables Made

Returns for Milk. Corn and hogs at various prices.

Returns Per Acre of Corn of Various Yields. When hogs sell at Various Prices.

Average Results of Many Experiments. Feeding and Hogging Corn Properly Supplemented.

Hogging Soy Beans.

ANNUAL REPORT

OF

W. V. HAYS
Field Agent

OFFICE SWINE EXTENSION

Raleigh, N. C.

Nov. 1, 1924 - Dec. 1, 1925.

The following are the main lines of work pursued during the year, followed by a more or less detached statement of the work accomplished in each line of endeavor.

1. The Hog Feeding Demonstration.
2. Register of Merit for Swine.
3. Ton Litter Contests.
4. Shipping and selling Demonstration Hogs.
5. Placing pure bred boars.
6. General meetings.
7. Hog houses, feeders, and other equipment.
8. Publicity.

The Hog Feeding Demonstration

The major portion of my time was devoted to this line of work and I must say that the results obtained seem to justify it. Over seventy-five per cent of the demonstrations started for sale last April and September were finished. However, the percentage of those started at this time will run lower.

In those counties where the agents gave any thought and time to these demonstrations, the feeders made money on the demonstrations. They learned the advantage of proper feeding. Their neighbors also profited by them. This was shown in different ways. Some men increased the number of brood sows kept on the farm while others saw that they had too many for a profitable system and disposed of the inferior animals.

It is surprising how few men know the cost of producing pork on the farm. The feeding demonstration has changed that in the communities where they were held. Quite often rivalry exists where several demonstrations are running at the same time. This brings out the finer points of feeding and stimulates the interest still further.

It is not uncommon for from five to twenty-five or thirty farmers to be present at one of these weighing dates. The hogs are weighed and gains are determined from the last weighing. The amounts of various feeds and their cost are computed and the balanced ration is mixed up for another period of thirty-five days. While these men are there we have a general discussion on the feed consumed and its cost to obtain the hundred pounds gain.

In putting on these demonstrations much care is exercised in seeing that there is a market, that the pigs are of a size to finish when the market should be at its best. Assistance is given the county agents in showing the hog growers the advantages of this feeding, and getting enough pigs for shipping in car lots where there is not a good local market. Also in getting up cooperative lots of fish meal and shorts at the best

The next page is a summary of the demonstrations conducted and will show their value.

Register of Merit For Swine

Register of Merit contests are held by this Office, the N. C. Swine Breeders' Association, of which I am secretary, cooperating. Medals will be given to the sows entered in this contest, according to their merit. There is now one Gold Medal sow in the state owned by Eston P. Covington. There are several entries and this contesting is a method of stimulating improvement of the various breeds. No boars have been entered, I am sorry to say. The future of this project looks bright.

Ton Litter Work

The Ton Litter Contest is going well with several entries in various counties. W. C. Wood of LaGrange, Lenoir County, is ahead with 12 pigs weighing 2722 pounds.

Assisting in Shipping and Selling Hogs

This work has mostly been done in connection with the final weighing of demonstration fed hogs.

Where there is a car lot, assistance has usually been given in the proper loading to trucks, wagons, etc., bedding the car according to season, and unloading hogs.

These hogs are usually consigned to some commission merchant who has proven reliable. This work consisted of about ten cars during the year.

Assistance was given in marketing small lots with local butchers and packers.

Placing Pure Bred Boars

Requests were received from many farmers throughout the state for pure bred boars. These boars were usually procured from some good breeder as near by as possible. However, quite a few boars were bought outside the state, usually fancy stock.

Some few herds were culled of sows and boars.

Assistance was given in the selection of a number of brood sows.

General Meetings

Several meetings were attended and talks made on Hog Feeding. This was usually at the time demonstrations were being conducted in a county.

Assistance was given in Beaufort and Craven with pig club organizations.

Hog Houses, Feeders and Equipment.

Assistance was given in furnishing plans for houses and feeders and in their construction in Beaufort, Chowan, Bertie, Pasquotank and Davidson Counties.

Help was given in laying out pastures, runs and lots in the counties of Carteret, Beaufort, Bertie, Chowan and Pasquotank.

Publicity

This consisted primarily of getting out forms on work done, in a county, to be distributed by the county agent as a means of advertising the "Feeding Demonstration" method of Feeding.

News Letters on various phases of the swine industry were sent to the swine breeders of the state.

Eight articles were written for the farm press and were used by Mr. Jeter to some extent.

A sample story is enclosed.

STATISTICAL SUMMARY

Visits to Agents (Some duplicates	194
Visits to demonstrations	338
Visits to farms	1464
Meetings held	40
Attendance	2209
Letters written	1122
Office consultations	241
Miles traveled, auto	10,814
Miles traveled, rail	9,639
Fair exhibits	3
Days vacation	8
Days sick	2
Articles written	8

Reasons Why North Carolina Suffered Least Decrease

By W. W. Shay.

It is thought that for the purpose of this study the three states mentioned below should be omitted from the list of 16 states mentioned as "The Cotton Growing States" for the reasons given.

Arizona: Because only 3.1 per cent of the total improved acreage is devoted to the production of corn; and because of the small number of hogs raised.

Missouri: Because only 0.4 per cent of the total improved acreage is devoted to the production of cotton.

California: Because only 0.7 per cent of the total improved acreage is devoted to the production of cotton and 1.0 to the production of corn.

If this is done, the revised ranking at the extreme right becomes effective.

The average percentage of decrease in the 12 states ranking below California is 34.43 which is 61.98 per cent greater than the percentage of decrease in North Carolina.

The comparatively slight decrease in North Carolina is, we believe, due to the more profitable methods of feeding hogs, and the additional profit derived from them through taking advantage of the seasonal price trend.

That the North Carolina method of handling hogs is profitable has been proven by records kept on over 4,500 head of hogs on over 300 farms of the state by county agents during the last three years.

Decrease in number of Hogs on Farms in Sixteen Cotton Growing States
Between January 1, 1920 and January 1, 1925
Compiled by
Office of Swine Extension, State A. & E. College, State College Station, Raleigh, N.C.

State	Cotton		Corn	Number of Hogs on Farms, Decrease and Ranking					
	Acres 1925 Thousands	Per cent improved land occupied 1919	Per cent improved land occupied 1919	1925	1920	Decrease	Per Cent	Rank	
Arizona	163	14.9	#3.1	#48,000	#49,599	1,599	3.22	(1)	Revised
Missouri	503	#0.4	22.4	3,481,000	3,888,677	407,677	10.48	(2)	Rank
N.CAROLINA	2,183	16.8	28.2	1,000,000	1,271,270	271,270	21.34	3	1
California	170	#0.7	#1.0	709.000	909,272	200,272	22.03	(4)	
Louisiana	1,916	23.9	26.7	665.000	855.562	190,562	22.27	5	2
Florida	115	4.8	34.4	570,000	755,481	185,481	24.55	6	3
Georgia	3,564	36.2	32.7	1,485,000	2,071,051	586,051	28.30	7	4
Texas	18,237	36.9	15.2	1,542,000	2,225,558	683,558	30.71	8	5
New Mexico	139	0.6	13.2	60,000	87,906	27,906	31.75	9	6
Oklahoma	4,867	15.1	13.6	841,000	1,304,094	463,094	35.51	10	7
Miss.	3,424	31.6	28.5	850,000	1,373,311	523,311	38.11	11	8
Arkansas	3,649	27.7	24.9	847,000	1,378,091	531,091	38.54	12	9
Virginia	96	0.5	19.1	576,000	941,308	365,308	38.81	13	10
Alabama	3,425	26.6	33.7	893,000	1,496,893	603,893	40.34	14	11
Tennessee	1,219	7.2	29.5	1,071,000	1,832,307	761,307	41.55	15	12
S.Carolina	2,740	42.6	28.4	484,000	844,981	360,981	42.72	16	13
16 States	46,410			15,122,000	21,285,361	6,163,361	29.39	16 States	
13 States	45,574			10,884,000	16,437,813	5,553,813	Av. 34.43	12 States	

LOOKING BACKWARD

During the last fifteen years the average farm value of 100 pounds of live-weight hog has equalled the value of over 11 bushels of corn.

During July, 1920, the ratio fell to 7.8 bushels; in November of that year it rose to 15 bushels.

In 1921 we had a bumper corn crop. In November of that year the ratio rose to 16 bushels!

Using the Pre-War (1910-1914) Average Price as 100

The prices of corn and hogs for the corresponding months of 1922 and 1923 follow:

	May, 1922	July, 1923
Corn	92%	125%
Hogs	125%	92%

During 1923 we had a surplus of hogs, due to the gratifying profit from turning corn into pork. That year we sold 10,000,000 more hogs than were sold in 1922.

During July, 1923, the ratio again fell to 7.5 bushels of corn. The cycle was complete!

But the abnormal season of 1924 resulted in a short corn crop, and—we continue to sell short on hogs!

SAVE THE BROOD SOWS

LOOKING FORWARD

What about the corn crop in 1925?

Heavy planting invariably follows a year of short crop and high price.

Should next season prove favorable, there are strong prospects for a bumper crop of corn. If it comes, what will it sell for?

It may easily happen in the fall of 1925 that the man who sells his corn as pork will receive three to five times more profit over cost of production than does the man who sells his corn as corn.

If there is not a large corn crop the present shortage of hogs insures a good price for corn-fed hogs.

The Stage Is Set

for a repetition of the cycle described under "Looking Backward"—will you be in a position to profit by it?

SAVE THE BROOD SOWS

The HOG

is not only a

Mortgage Lifter

he is also an

Insurance Policy

When there is a surplus of corn he sometimes pays the farm price of one and one-half bushels of corn for each bushel he eats.

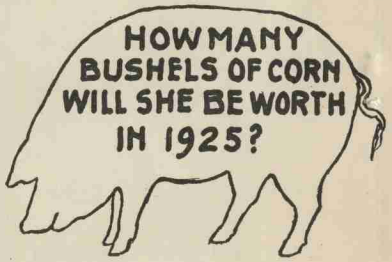
Of what benefit is a bumper crop if the price is below the cost of production?

Do Not Sacrifice Your Brood Sows!

JANUARY, 1925 EXTENSION FOLDER NO. 16

SAVE THE BROOD SOW

By W. W. SHAY



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

N. C. AGRICULTURAL EXTENSION SERVICE
I. O. SCHAUB, DIRECTOR
RALEIGH

Distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914

DO YOU FIGURE?

if so,

Pity the Poor Iowa Farmer

As compared with the North Carolina farmer:

His land is more expensive;
Labor is higher in price;
Taxes are higher;
He cannot raise cotton!

Therefore, under the above conditions, he raises corn—a great deal of corn—and then he feeds it to hogs—10,500,000 hogs!

* * *

As compared with the North Carolina farmer:

His winter is much more severe;
He cannot use winter grazing crops;
Winter farrowed pigs are difficult to raise;
He suffers from the seasonal price trend;
His hogs sell at a lower price!

And so, if you were to figure it out for him, he goes bust every year! His annual family income is only $4,500. Poor man!

WHAT'S THE MATTER?--

In North Carolina, as compared with Iowa:

Land is cheaper;
Labor is cheaper;
Taxes are lower; and
We raise a "money crop"!

* * *

It doesn't pay to raise hogs in North Carolina because:

As compared with Iowa—

Our winters are milder;
We can use winter grazing crops;
Winter farrowed pigs are easily raised;
We can profit by the seasonal price trend;
Our corn-fed hogs sell at a higher price!

Consequently, by our method of figgerin' we'd go bust every year feedin' hogs!

Our average annual income per farm family is $1,500. Lucky dogs!

THE IOWA FARMER FIGURES:--

Charging $5.00 per day for a man and team, and all other charges at their actual cost, if it costs seventy cents to produce a bushel of corn and it sells at the farm for $1.00, the profit is thirty cents.

If the corn is fed to hogs and they pay $1.30 per bushel for it, the profit is double.

If the farm price of corn falls to 75 cents per bushel, and the price of hogs holds, the **profit** through selling it as pork is twelve times as much as that from selling it as corn—and the fertilizer value of fifteen cents per bushel pays well for the extra labor.

Also, he figures that a seven-months-old hog should weigh 200 pounds.

That's foolish! But — over 100 North Carolina farmers are making their hogs do it—and they're not bust yet!

BOTH PROFITS ARE YOURS

Why Buy Corn or Hogs?

The farmer's **profit** from producing corn-fed hogs is measured by **the difference between the cost of producing corn and the price received for the corn converted into pork**—the market price of corn does not enter into the consideration;

But—

During 1921 and 1922 it was possible for a man to buy corn at the farm price, convert it into pork,

And

Make more profit on a bushel of corn than the man who raised it.

* * *

Remember!

High prices prevail during a shortage. It will be cheaper to

SAVE THE BROOD SOWS!

* * *

Other Comparisons

The improved acreage worked per farm family in Iowa is 130. In North Carolina it is 30.

"There's the rub!"

As Dan T. Gray puts it: "We must extensify."

Men with larger than average farms which will make good corn should find food for thought in the above facts.

(Ask for Extension Circular No. 143)

(Figures in this letters are taken from *Weather, Crops, and Markets*, U. S. D. A.)

SAVE THE BROOD SOWS

. (PLATE)

APRIL NEWS LETTER

Prepared by W. W. Shay

In our last communication we urged you to "Save The Brood Sow" and we made an effort to show you why. We did that because there is profit to be gotten out of them - in this letter we shall attempt to tell you How.

Should we have a normal crop season, the acreage to be planted to corn this spring, based on the avowed intentions of farmers, justifies the belief that the price that will be paid for the 1925 crop will not be over $1.00 per bushel.

The existing shortage of hogs insures a good price for corn fed hogs next September, when, as a rule the price is best. The trick is to sell as much 1925 corn at the price paid for the 1924 crop as possible - that means feed it to hogs early.

Let us consider 10 pigs weighing an average of 35 pounds each May first. The easiest way is to set up a self feeder on one-half to one acre of good permanent pasture near a constant supply of pure water and shade, and keep it supplied with shelled corn, fish meal and a mineral mixture.

Plant enough land to produce 52½ bushels of early maturing corn for these pigs, which if grown in the eastern or central part of the state will be ready to turn on from July 15 to August 1st, when the self feeder may be moved to the corn field, after which the corn may be omitted from its contents, but the fish meal and minerals continued, or the fish meal may be hand fed.

If your land will produce 30 bushels of corn per acre they will need one and three-fourths acres to produce the required 52½ bushels.

If the fish meal is hand fed they will need 140 pounds while on the corn.

Let us plan to sell these 10 pigs at an average weight of 200 pounds on September 15.

Inasmuch as most pigs are hand fed, we will consider that method of feeding them until August 1st, at which time they will average 130 pounds, then turn on the standing corn for six weeks and sell while the price is still good at around 200 pounds average weight.

For the purpose we shall need the following variety and amounts of feed:

Feed Required On Pasture
May 1, to August 1, - 13 weeks.

(To be fed in Mixtures Nos. 1, 2 & 3)

	Pounds	Price	Cost	Pounds	Cost
Fish meal	310	$3.50	$10.85)		
Corn meal	810-16.88 bu.	1.75	29.54)	1530	$48.59
Wheat middlings	410	2.00	8.20)		
Corn, separate	1530-27.33 bu. @ $1.75			1530	47.83
Total Feed and Cost to August 1,				3060	$96.42

Estimated gains 950 pounds.
Cost per 100 lbs. gain at above prices for feed $10.15
Profit if sold at 14 cents, $36.58.
Returns per bushel of corn, hogs 14 cents $2.58.

Feed August 1st to September 15th.

Six weeks - corn at $1.00 per bushel.

	Pounds	Price	Cost	Pounds	Cost
Fish meal	140	$3.50	$ 4.90)		
Standing corn	2940 -52.5 bu.	$1.00	$52.50)	3080	$57.40
Estimated gains in corn field		700 lbs.)			
Cost per 100 lbs. gain in field		$8.20)		6140	$153.82

Total gains May 1 to September 14, 1,650 pounds.
Total cost of gains at prices charged $153.82.
Total value of gains, hogs 14¢ $231.00.
Average returns per bushel of corn fed, $2.15.
Returns per bushel of standing corn, all profit applied $2.47.

If all corn were charged at actual cost of production - say 75 cents per bushel, the Profit on these ten pigs, according to the above figures, would be $134.52 or a Profit of $1.39 per bushel on the corn.

When this is compared with raising corn at a cost of 75 cents per bushel and selling it at 80 cents to $1.00 which it is reasonable to expect the price will be next winter, the contrast, to say the least, is striking.

If twenty-five percent of the prospective corn crop of North Carolina were handled in this way this year the profits of the farmers of the state would be increased ten million dollars ($10,000.000).

The Difference

The wide-awake man is well paid for the exercise of intelligent management - there is no escape from payment by the somnolent of a high price for failure to exercise it.

Form 32 Serial No. 356 Period

Correct Feed For Hogs Owned By

Mr. J. D. Hocutt

Weigh and Thoroughly Mix:

	Parts	Pounds
Fish Meal or Tankage	(1)	100
Corn Meal	(1)	100
Red Dog or Middlings	(2)	200
Slop Mixture	(4)	400
Set aside corn	(4)	400 Lbs.
If ear corn		Lbs.

Mix Slop Thick. Feed corn separate

The following amounts, dry weight, should be fed.

Beginning Jan. 19

Slop Mixture,	Morning	4.5 Lbs.
Slop "	Night	4.5 Lbs.
Corn	Morning	4.5 Lbs.
Corn	Night	4.5 Lbs.
If ear corn		Lbs.

The above amounts should be increased slightly each day so that they should be at the beginning of the

2nd week 5 Lbs. 4th week 6 Lbs.
3rd " 5.5 Lbs. 5th " 6.5 Lbs.

It is advisable to weigh the daily feed at the beginning of each week.

OFFICE OF SWINE EXTENSION

Serial No. 356

Form No. 9.

DEMONSTRATION OF PORK PRODUCTION

Farm of J. D. Hocutt at Burgaw, N. C.

Pender County W. H. Robbins Agent.

Beginning Jan. 19 192 6. (Subsequent Weighing Dates.) 2nd 2/23 3rd 4th Last

ANIMALS				PASTURE		FEED	
No.	Breed	Age	Weight	Variety	Condition	Mixture No.	Amount
16			344				

Average Weight . . . 21.5

SLOP MIXTURE NO. . . . 1. .

MIX THOROUGHLY - DRY

	Parts	Lbs.
Fish Meal	(1)	100
Corn Meal	(1)	100
Best Shorts	(2)	200
Slop Mixture #	(4)	400
Corn, Separate	(4)	400
Total for Period		800

MIX SLOP THICK.

CONDITIONS.

Water:

House:

Feeding:

Lice:

Minerals:

Keep: hard wood ashes, salt and sulphur before them all the time - not mixed.

Keep: free of lice.

Increase the feed slightly each day and weigh amount fed daily once each week.

NOTES.

If toll is excessive or mill too distant, shelled corn may be substituted for corn meal in the slop mixture.

If after a week the pigs will readily eat more than is indicated in the schedule increase it.

FEEDING SCHEDULE.

Month:	Jan.	Jan.	Feb.	Feb.	Feb.	Total Est. Weight, Gain and Feed.
Day:	19	26	2	9	16	Feb. 23
Weight:	344	381	424	473	529	594
Estimated Gain	37	43	49	56	65	250
Slop Mixture, Morning	4.5	5	5.5	6	6.5	
Corn, Dry, Morning	4.5	5	5.5	6	6.5	
Slop Mixture Night	4.5	5	5.5	6	6.5	
Corn, Dry, Night	4.5	5	5.5	6	6.5	
If Ear Corn	Feed shelled corn during this period.					
Feed for Week:	133	147	161	175	184	Total. 800

N.B. If they have not been fed much, begin with half the above and increase each feed about 25% getting to the above amounts on the third day.

OFFICE OF SWINE EXTENSION,

STATE COLLEGE STATION, RALEIGH, N. C.

Form No. 8. Serial No. 337

WEIGHT OF DEMONSTRATION HOGS.

Farm of Guy Hargett

Date Jan. 15 192 Address Richlands N. C.

Jones County J. T. Monroe Agent.

WEIGHTS				FEED CONSUMED	
No. Hogs	Gross	Tare	Net	Variety	Pounds
18	2360			Mixture No. 1	
				Mixture No. 2	
				Mixture No. 3	1637 lbs.
				Mixture No. 4	
				Corn Shelled	# Bus.
				" Ear	# 1953 lbs.
				" Shuck	# "

LOCAL PRICES.

Red Dog	Per 100 lbs.	$
Wheat Shorts	" " "	$ 2.15
Fish Meal	" " "	$ 3.75
Tankage...%	" " "	$
Corn	Per Bushel	$ 1.00

NOTES.

Bad weather was the cause of these hogs being weighed one week later than they should have been.

OFFICE OF SWINE EXTENSION,
State College Station, Raleigh, N. C.

Form No. 10

No. of Hogs 18 Head

RESULTS OF HOG FEEDING DEMONSTRATIONS

Serial No. 337

Jones County J. T. Monroe Co. Agt.

From Dec. 4 To Jan. 15

Pasture

Guy Hargett Owner

Address Richlands

Period of 42 Days.

No. of Hogs	Initial Wt.	Final Wt.	Total Gain For Period	No. Days Fed	Gain Per Pig	Aver. 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 10¢
18	1375	2360	985	42	54.7	1.3	3,199	$54.28	325	$5.51	$2.46	$44.22

STANDARD PRICES
FEED CONSUMED AND PRICES CHARGED

Feed	Pounds		Price	Cost
Fish Meal	327		$3.50	$11.45
Corn Meal	982	(20.46 Bu.)	0.75	15.35
Red Dog	328		2.00	6.56
Corn	1562	(27.9 Bu.)	0.75	20.92
TOTALS	3,199	(48.36 bu.)		$54.28

LOCAL PRICES
ACTUAL COST

Feed	Pounds		Price	Cost
Fish Meal	327		$3.75	$12.26
Corn Meal	982	(20.46 Bu.)	1.00	20.46
Red Dog	328		2.15	7.52
Corn ear (sh. basis)	1562	(27.9 Bu.)	1.00	27.90
TOTALS	3,199	(48.36 bu)		$68.14

Deducting the actual cost of purchased feeds - wheat mill and fish meal or tankage - $19.78 from the value of gains at 12 cents per pound 985 @ 12 cents, $118.20, there remains $98.42 as return for the 48.36 bushels of corn fed, or $2.03 per bushel.

How much does it cost you to produce a bushel? At 75 cents, the profit will be $62.15. The fertilizer, or plant food, value of the above feeds, which remains on the farm is $15.82.

OFFICE OF SWINE EXTENSION, RALEIGH, N. C.

5,937,43 bushels of corn, Profit per bu. 2.87½¢

ABSTRACT OF RESULTS OF SWINE FEEDING DEMONSTRATIONS DURING THE FISCAL YEAR ENDING NOVEMBER 30, 1925.

Number of County Agents participating	16
Number of Demonstrations started	107
Number of Demonstrations completed	71
Number of Demonstrations lapsed	22
Number of Demonstrations still running	14
Number of Hogs weighed and started	1693
Number of Hogs in lapsed demonstrations	597
Number of hogs in completed demonstrations	1096

RESULTS OF COMPLETED DEMONSTRATIONS

Average Gains

Average Weight at which hogs were sold	175 lbs.
Average initial weight of hogs	72 lbs.
Average gain per pig	103 lbs.
Feed consumed per 100 pounds gain	354 lbs.
Average length of period fed	80 days
Average daily gain per pig	1.29 lbs.
MARKET VALUE OF PLANT FOODS IN MANURE	$1,958.93

FINANCIAL

Sold 1096 hogs, 199,298 lbs. @ $13.055	$25,105.92
Value of gains, 113,349 lbs. @ $13.055	14,797.71
Feed cost of gains, corn at $1.35 per bu.	10,121.53
Profit on corn charged at $1.35	4,676.18
Average cost per 100 pounds gain	8.93

Average Profit per 100 pounds gain $4.13

AVERAGE RETURNS PER BUSHEL OF CORN 2.14

AT FARM COST

If the 5,937.63 bushels of corn fed to these hogs was produced by their owners at a cost of $0.75 per bushel, The Profit over feed cost made by them was $8,217.63 or $7.25 per 100 pounds gain, and the plant food remaining on the farm valued at $1,958.93 should be amply pay for the labor of feeding.

DISTRICT AND COUNTY AGENTS

PLEASE TAKE NOTICE

As you doubtless know, thousands of bushels of corn are being sold by farmers now at from $0.75 to $1.00 per bushel. If a simple change in the system of handling 1096 head of hogs for a period of 80 days could result in an increase of profit amounting to $4,676.18 is not this fact of importance to you?

There can be no reasonable doubt that hogs properly fed during the intervening time, and sold next April will pay $1.50 per bushel for all the corn they eat.

But corn costing $0.75 to produce and sold at the same price will supply no profit for the purchase of merchandise.

Please bear in mind that it is a Change in the system of handling them, rather than more hogs that we are working for,

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OFFICE OF SWINE EXTENSION
STATE COLLEGE OF AGRICULTURE AND ENGINEERING
State College Station, Raleigh, N. C.

COST OF SHORTS & TANKAGE
$2,127.00
Plant food value of feed consumed
$1,958.93

RESULTS OF ~~108~~ 107 HOG FEEDING DEMONSTRATIONS
IN 16 COUNTIES
Fiscal year ending Nov. 30, 1925
OFFICE OF SWINE EXTENSION, RALEIGH, N.C.

AVERAGE RETURNS
per bushel of corn
$2.13

No. & Wt. of hogs started	No. of hogs at end	Initial Wght	Final Wght.	Total Gain	No. of days record	Gain per pig	Avg. daily gain per pig	Total feed consumed	Total cost of feed consumed	Feed per 100# gain	Feed Cost per 100# Gain	Profit per pig @ 10¢	Value of gain over feed Cost pork @10¢	Pounds Sold Live Weight	Amount Solf For
Beaufort County, B.E. Grant, Agent -- 14 started; 11 completed; 3 lapsed															
312 20888	242	16045	35617	19572	64.	80.9	1.25	70083	$1165.76	358	$5.95	$3.27	$791.44	35617	$4,288.80
Bertie County, B. E. Grant, Agent - 6 started; 6 completed.															
182 19986	182	19986	37346	17360	73.	95.4	1.31	66712	1046.56	384	6.03	3.79	689.42	37346	4,766.04
Bladen County, J. R. Powell, Agent - 3 started, 3 completed.															
56 2260	56	2260	7417	5157	105.	92.1	.86	16859	291.95	325	5.59	4.00	223.75	7417	1,029.48
Cabarrus County, R. D. Goodman, Agent - 1 started; 1 completed															
12 839	12	839	1399	560	43.	46.6	1.08	2021	35.35	361	6.31	1.72	20.65	1399	160.88
Cateret County, Hugh Overstreet, Agent, - 3 started; 2 completed; 1, lapsed.															
42 3795	24	2497	6397	3900	95.	162.5	1.7	14946	215.00	383	5.51	7.29	175.00	6397	772.21
Chowan County, N. K. Rowell, Agent - 2 started, 2 completed.															
69 4309	69	4309	15659	11350	95.	164.5	1.73	41536	642.13	366	5.66	7.14	492.87	15659	2,087.34
Craven County, C. B. Faris, Agent - 15 started, 4 completed, 11 lapsed.															
215 10076	21	1518	3558	2040	64.	97.	1.51	6132	105.75	301	5.18	4.68	98.25	3558	515.33
Cumberland County, N. B. Stevens, Agent - 6 started; 5 completed; 1 still running.															
110 4370	96	3222	13007	9785	92.	102.	1.1	33222	554.35	340	5.67	4.42	424.15	13007	1,808.32
Davidson County, C. A. Sheffield, Agent - 20 started; 10 completed; 9 still running 1 sold out.															
201 9799	67	4204	12321	8117	88.	121.	13 8	26925	445.35	332	5.48	5.47	366.35	12321	1,642.66
Halifax County, W.O. Davis, Agent -- 1 started; 1 lapsed after 3 periods.															
1 49															
Lenoir County, C.M. Brickhouse, Agent - 4 started; 4 completed															
37 1522	37	1522	5923	4401	100.	118.9	1.19	14729	246.78	335	5.61	5.22	193.32	5923	749.72
Mecklenburg County, Kope Elias, Agent - 2 started; 1 completed; 1 lapsed															
12 613	8	372	1210	838	87.	104.	1.2	2718	48.35	324	5.77	4.43	35.45	1210	169.40
Montgomery County, A.R. Morrow, Agent - 10 started; 8 completed; 2 lapsed.															
107 4363	82	3761	16116	12355	119.	150.7	1.27	43066	701.22	349	5.68	6.52	534.28	16116	2,291.15
Pasquotank County, G. W. Falls, Agent 2 started; 2 completed															
29 3031	29	3031	5912	2881	71.	99.3	1.39	9794	158.62	340	5.50	4.46	129.48	5912	690.53
Pamlico County, R. W. Galphin, Agent - 14 started; 11 completed; 2 still running; 1 lapsed.															
217 21416	162	14923	28648	13725	62.74	84.7	1.35	47272	780.69	344	5.69	3.65	591.81	28648	3,903/32
Pender County, W. H. Robbins, Agent - 4 started; 1 completed; 2 still running; 1 lapsed.															
43 1840	9	460	1768	1308	105.	145.3	1.38	4850	79.28	371	6.66	5.72	51.52	1768	229.84
TOTALS															
1693 ~~1095~~ 109,994	1096	78949	192298	113349	80.	103.	1.29	400865	$6517.14	354	$5.75	$4.23	$4817.76	192298	$25,105.02

FEED, AVERAGE FARM COST

Feed	Pounds	Price	Cost
Fish Meal	33,261	$3.50	$1,164.14
Corn Meal	61,347 (1,278.06 bu.)	.75	958.55
Wheat shorts	44,681	2.00	893.62
Corn	260,936 (4,659.57 bu.)	.75	3,494.68
Peanuts & Oats	640	.96	6.15
TOTALS	400,865 (5,937.63 bu.)		$6,517.14

FEED AVERAGE MARKET PRICE 1925

Feed	Pounds	Price	Cost
Fish Meal	33,261	@$3.31	$1,100.92
Corn Meal	61,347 (1,278.06 bu)	1.36	1,741.30
Wheat Shorts	44,681	2.26	1,019.79
Corn	260,936 (4,659.57 bu.)	1.34	6,253.37
Peanuts & Oats	640	.96	6.15
TOTALS	400,865 (5,937.63 bu.)		$10,121.53

HOGS AS A SOURCE OF INCOME IN EASTERN NORTH CAROLINA

Only four things are necessary to multiply profit on the average Eastern North Carolina farm. They are:

A Desire For Information
Open Mindedness
Intensive Study
Execution.

The dairy cow pays for her feed with milk, the hen with eggs and the mule with labor, but the only way a market hog can pay for his feed is through gain in weight.

To illustrate: if you give ~~100~~ four pound hogs four pounds of feed per day for ten days they will still weigh 100 pounds - returns for forty pounds of feed nothing.

If the same amount of feed is given one 100 pound hog in the same length of time, at the end of the ten day period he will weigh 110-113 pounds - returns for feed, pork at 10 cents per pound, $1.00 to $1.30.

The Cost of Guessing

It is an established fact that land which will produce 20 bushels of soy beans per acre will produce 30 to 40 bushels of corn per acre.

A survey of fifty farms in Eastern North Carolina gave the average cost of producing corn and soy beans, ready to harvest as follows:

Comparative Yield Per Acre and Cost Per Acre and Per Unit of Soy Beans and Corn on Fifty Farms in Eastern North Carolina

Crop	Number of farms	Acres per farm	Yield per acre	Cost per acre ready to harvest	Cost per acre harvested	Cost per bushel harvested
Soy beans	54	17.9	18.9 bu.	$16.94	21.74	$1.15
Corn	50	34.3	29.7 bu.	$18.10	22.41	0.755

The average of a great many experiments conducted by several state experiment stations shows that When supplemented with 187 pounds of concentrates, consisting of tankage, wheat shorts and corn per 100 pounds gain, 382 pounds gain may be expected on an acre of soy beans which will yield 18.9 bushels.

If four hogs weighing 418 pounds September 10, and worth at the average market price during September $44.43 are turned in such a field of soy beans where during the next 107 days they gain 382 pounds and become "oily" and the market price has declined from $10.63 to $8.80 for prime hogs, and the price of "oily" hogs is $2.00 less, we have the following result.

Value of hogs Sept. 10, 418# @ $10.63	$44.43
Cost of 714 lbs. concentrates @ 2¢	14.28
Cost to produce acre of soy beans	16.94
Total cost of 800 pounds December 26	$75.65
Value of 800# "oily" hogs Dec. 26 @ $6.80	54.40
Returns for acre of soy beans, Loss	$21.25

The same method of figuring applied to the operation of hogging down an acre of corn is also worthy of consideration.

Using five hogs for the purpose, and turning them on the corn in the dough stage July 20, at a total weight of 576 pounds, worth at the average market price at that time, $59.27. The acre of corn yielding 29.7 bushels of corn is supplemented with 144 pounds of tankage or fish meal; or 34 pounds per 100 pounds gain, at a cost of $3.50 per 100 pounds.

Under such circumstances the hogs will gain 424 pounds, with the following result:

Value of hogs July 20, 576# $10.29	$59.27
Cost of 144 pounds fish meal @ 3.50	5.04
Cost to produce acre of corn	18.10
Total cost of 1,000 pounds September 18.	$82.41
Value of 1,000 lbs. live weight Sept. 18 @ $10.63	106.30
Returns above items charged	$23.89

Returns for the corn $41.99 or $1.41 per bushel.

Value of plant food remaining on the acre $7.33.

There are even more amazing things than the mistaken practise cited above occuring on farms in eastern North Carolina today.

Shotes averaging 75 pounds now (January 1926) will, beyond doubt pay $1.50 per bushel for all the corn fed to them between now and next April, providing only, that it is supplemented with fish meal, and that they are full fed - yet I personally know of many farmers where there are such shotes - and corn is being sold at $0.80 per bushel.

Where such corn cost $0.75 to produce, when sold at $0.80 the profit is $0.05 per bushel; if converted into pork through intelligent feeding, the profit per bushel would be $0.75 or fifteen times as much!

The Greatest and Immediate Need of Agriculture in Eastern North Carolina is <u>improvement in the method of handling the crops we already have</u>.

Additional information can be obtained by writing the State College of Agriculture.

W. W. Shay, In Charge,

Office of Swine Extension.
ANIMAL INDUSTRY DIVISION.

THREE FACTORS TO BE CONSIDERED IN PORK PRODUCTION ON A COMMERCIAL SCALE

By W. W. Shay.

The profit from pork production is influenced by several factors, all of which must be given consideration by the man who would make a success of the business.

Passing at this time the necessity of attention to proper housing and sanitation to the end that the animals may be healthy, we will limit our study to the effect on profit of three main factors upon which profit largely depends. They are:

1. The Market Price of Hogs.
2. Cost of Production.
3. Volume of Production Per Unit.

The last two factors mentioned are so merged together and overlap each other, so to speak, to an extent that is so confusing, that it appears wise at this time to clear up the apparently ambiguous statement that even tho sold at the same price, the cheapest gains are not always the most profitable.

THE CHEAP PASTURE GAINS MYTH

Farmer A has a 40 pound pig which he turns into his neighbor's fine pasture for which no charge is made - not even interest or taxes. During the following five months without feed other than the pasture, the pig gains ten pounds.

Profit at ten cents per pound gain $1.00

Farmer B puts a 40 pound pig on a self feeder which is kept constantly supplied with corn at $1.00 per bushel, properly supplemented, with suitable protein concentrates. During the following five months his pig gains 150 pounds at a feed cost of $7.00 per 100 pounds.

Value of 150 pounds gain @ $10.00	$15.00
Feed cost of 150 pounds gain @ $7.00	10.50
Profit over feed cost	$ 4.50

The swine Work of the State is suffering from a lack of clear understanding of the real meaning of three terms; let us define the meaning of each in order that we may know just what we are talking about.

Cost of Production.

Cost of Production includes all charges for labor, material, and overhead, and is not represented by the market price of an article except when cost of production and market price are the same

Value

The value of an article is its market price; and only when purchased or produced at its market price and used in the production of another article is it properly charged at its market price in the cost of producing the other article.

Profit

Profit is the difference between the total of all legitimate charges against an article and the price received for it.

An illustration of the point in question is furnished by the results of the feeding of a car load of hogs by Mr. Hostetler at the Blackland Branch Station at Wenona, during the spring of 1925.

There not being sufficient corn raised on the Station farm for the purpose, it was necessary for Mr. Hostetler to purchase corn at the local market price of $1.35 per bushel, and the corn was properly charged against the hogs at that price.

After paying all other charges against them, the hogs paid $2.24 per bushel for all the corn they ate, returning a profit of $0.89 per bushel for it.

Cost of Producing Corn.

A survey of fifty farms in eastern North Carolina showed the cost of producing corn on land yielding thirty bushels per acre to be approximately $0.75 per bushel.

On that basis, the farmer who sold the corn to Mr. Hostetler at $1.35 per bushel made a profit of $0.60 per bushel.

Had he fed it to hogs as efficiently as Mr. Hostetler did, and improperly charged it to his hogs at the market price, the profit shown would have been the same as that made by Mr. Hostetler- $0.89 per bushel; but the corn did not cost him $1.35 to produce, and he neither bought or sold the corn, therefore, the market price of corn in his case had nothing to do with the matter except as a check on the profit from selling corn from his farm that year as compared with converting it into pork at the market price of hogs that year. Had he fed it his profit on the corn would have been the total of both the profits made by him and by Mr. Hostetler, or $1.49 per bushel - an increase of 248 per cent over the profit received through selling it as corn.

Yearly Prices Unreliable.

As an example of the unreliability of the yearly prices of corn and hogs as a basis upon which to plan operations for the ensuing year, your attention is called to the comparative prices of corn and hogs during December 1924 and 1925 with their ratios:

	Corn	Hogs	Ratio
December 1924	$1.35	$9.35	6.9 bushel
#December 1925	.75	11.00	14.7 "

(#approximate prices used for illustration)

The influence of the narrow ratio of corn and hog prices one year since was foreseen, and 10,000 circulars were issued by The Office of Swine Extension in an effort to prevent as far as possible the result of it in this state.

It was pointed out that the man who had hogs through which to convert his corn into pork this fall and winter might easily realize three to five times the profit over cost of production that would result from selling it as corn.

Those conditions have materialized.

A More Reliable Guide Offered.

Having seen that the current prices of corn and hogs are unsafe as a guide to future operations, an average of eighteen years prices by months is offered in place of the current price of hogs.

The period of eighteen years is selected because it is thought that it goes far enough back into prewar prices to offset the abnormally high prices prevailing during the late war.

Substitution of approximately the actual cost of producing corn on the farm where operation is contemplated offers a reliable means of computing the approximate cost of producing pork on that farm during a normal season when hogs are handled efficiently.

The cost of producing corn varies greatly, of course, with the fertility of the land and yield per acre; it is also affected by the mechanical type of the soil; but the farmer who does not know approximately how many bushels of corn he can raise per acre on a given part of his farm during a normal year certainly cannot be depended upon to accurately estimate the prices of corn and hogs a year ahead - and sows are bred about one year before the pigs resulting from the mating are sold.

Corn The Cheapest Hog Feed Known

It was perfectly obvious from the beginning that statement in the above caption would have to be proven, hence the demonstration.

Since starting the work, the price of hogs has ranged from as low as $5.00 for "oily" hogs during December and January to as high as $15.25 for prime hogs during March; and the price of corn has varied from $0.60 cents per bushel to $1.65 per bushel. During that time, the county agents cooperating with this office have weighed, in most demonstrations as often as three times, 4,880 hogs on 334 farms, and in every case, where complete records have been kept, and the hogs sold during the spring or fall, the results have shown profit.

The unsatisfactory status of pork production in North Carolina is due to the hallucination that there are cheaper feeds than corn - there is no such feed!

It actually costs more to produce an "oily" 200 pound hog on grazing crops planted especially for the purpose, than it does to produce a prime 200 pound hog with corn properly supplemented with protein supplements, and ---- the difference in value is $4.00 in favor of the cheaper hog!

The answers to the following problems, it is believed, furnish proof of the foregoing statements relative to cost of production, and as knowledge of the facts is necessary if sound advice is to be given the farmer, it is hoped that all county agents will carefully fill in the blank spaces and return problems numbers 1 and 2 at the next session which will be held in Room No._____at_____. o'clock.

KEY TO ALL FOLLOWING PROBLEMS

Average of 18 years Prices of Hogs by Months

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
$	$	$	$	$	$	$	$	$	$	$	$
8.99	9.34	9.99	10.13	9.99	9.89	10.29	10.54	10.63	9.73	9.04	8.80

(1) Cost of producing an acre of soy beans ready to harvest $16.94

(2) Average yield per acre in state 1923-1924, 13.2 bu.@$2.18-28.78

(2) Average yield per acre in state " "hay 1.27tons@19.50-24.76

Average yield of pork when supplemented with 187 lbs. of concentrates, per 100 pounds gain,- 267 lbs. (Average of 24 experiments covering nine years, conducted by three state experiment stations.)

1 Average cost of producing an acre of corn ready to harvest $18.10; cost of harvesting, per bu. 14.5 cents, ($2.97; for 20.5 bushels.)

2 Average yield per acre in state 1919-1924, 20.5 bushels.

Average yield of pork per acre when supplemented with 100 pounds of fish meal or tankage 293 pounds. (Average of 13 yrs. trials by five stations.)

Cost of fish meal or tankage $70.00 per ton.

(1) Bulletin 267.
(2) Farm Forecaster.

HOGGING SOYBEANS - A PROBLEM. NO. 1.

On September 10th a farmer has an average acre of soybeans whidh will yield 2 bushels of beans or 1.27 tons of hay. He also has three 150 pound prime hogs which he turns in the field, supplementing the beans with concentrates which cost $2.00 per 100 pounds.

On December 19th the beans are cleaned up, and the hogs have gained 267 pounds and have eaten 187 pounds of concentrates, per 100 pounds gain.

They now weigh 717 pounds, but during the interval they have become "oily" and he sells them $2.00 below the current market price of prime hogs.

Please fill in the blank spaces below.

Initial weight Sept.10	Initial value Sept.10 @$	Gain on soy beans	Final weight Dec.19	Final value Dec.19 @$	Cost of 499 lbs. concentrates @ $2.00	Cost to Produce acre of soybeans	Total cost to produce 267 lbs. gain	Returns for feed and beans per pig	Result of hogging soy beans per acre.
450#	$	267#	717#	$	$9.98	$16.94	$	$	$

How much of the above result was due to change in price? $_____

How much of the above result was due to profit or loss on gains? $_____

Cost per 100 pounds gain? $_____ Total $_____

HOGGING DOWN CORN - A PROBLEM NO. 2

On July 20, a farmer has an average acre of corn which will yield 20.5 bushels per acre. He also has four hogs which weigh 507 pounds or an average of 126.75 pounds each, which he turns in the field in which is a self feeder supplied with fish meal and minerals.

On September 18, sixty days later, the corn being cleaned up, and also 100 pounds of fish meal eaten, he sells the hogs at the current market price, they having gained 293 pounds during the period.

Please fill in the blank spaces below.

Initial weight July 20	Initial value July 20 @$	Gain on the acre of corn	Final weight Sept. 19	Value Sept. 18	Cost of 100# Fish meal @$3.50	Cost to produce acre of corn	Total cost to produce 293# gain	Returns for fish meal and corn	Return for corn per acre per bushel
									A.$
507#	$	293#	800#	$	$3.50	$18.10	$	$	Bu.$

How much of the above result, per acre was due to change in price? $_____

How much of the above result per acre was due to profit or loss on gains? $_____

Cost per 100 pounds gain? $_____ TOTAL $_____

WINTER AND SPRING FEEDING OF SHOATS

A Problem - No.3.

On December 15, a farmer has ten shoats which have just finished gleaning the soy bean and peanut fields. They average 80 pounds each and are "oily".

He also has a crib of corn, the market price of which is $1.00 per bushel, which as his yield was only twenty bushels per acre cost him about $1.00 per bushel to produce. He puts them on full feed for a period of 100 days, or until April 4, during which time they eat the following feed: Fish meal 507 lbs; corn 5191 lbs.(92.7 bushels); wheat shorts 247 lbs; and gain 1450 pounds in weight.

Please fill in the following blank spaces.

Initial weight & value Dec.25 @ $	Final weight & value April 4, @ $	Gain for period and value @ $	Average gain per pig and value @ $	Cost of fish meal & shorts	Total feed and cost	Feed and cost per 100# gain	Net returns above feed cost	Average net returns per pig	Returns per bushel of corn
800#	2250#	1450#	145#		5945#	410#			
$	$	$	$	$22.69	$115.39	$7.96	$	$	$

How much of the result per pig was due to change in price? $_____

How much of the result per pig was due to profit or loss on gains? $_____

TOTAL $_____

Problem No.1 illustrated a loss per pig of $8.67 through selling them "oily" at the wrong time of the year. $___ is the profit from this method. What is the difference? $_____

SELLING BARBECUE PIGS

A Problem. NO. 4.

On January 15, a farmer has 10 shoats which weigh 750 pounds, or an average of 75 pounds each; they will dress 50 pounds each.

He can sell them on the local market for 20 cents per pound dressed or he can add 125 pounds in twelve weeks at a feed cost of seven cents per pound thus having them ready for sale April 9, at 200 pounds.

Conditions during January indicate a price of 12 cents per pound on foot during April.

Please fill in the following blank spaces.

Value of pigs January 15 $_____

Cost of 1,250 pounds gain during 12 weeks $_____

Cost of 2,000 pounds April 9 $_____

Value of hogs April 9, 2000 pounds @ 12¢ $ 240.00

What is the profit or loss from continued feeding $____ Profit / Loss

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They will dress 75% of their live weight and he is offered 16 cents per pound dressed; what are they worth at that price? $_____

If sold in April on foot weighing 2000 pounds, what is the lowest price at which they would pay for the feed? $_____

HOGGING SOYBEANS - A PROBLEM. NO. 1.

Answer to Problem No. 1.

On September 10th a farmer has an average acre of soybeans whidh will yield 13.2 bushels of beans or 1.27 tons of hay. He also has three 150 pound prime hogs which he turns in the field, supplementing the beans with concentrates which cost $2.00 per 100 pounds.

On December 19th the beans are cleaned up, and the hogs have gained 267 pounds and have eaten 187 pounds of concentrates, per 100 pounds gain.

They now weigh 717 pounds, but during the interval they have become "oily" and he sells them $2.00 below the current market price of prime hogs.

Initial weight Sept.10	Initial value Sept.10 @$10.63	Gain on soy beans	Final weight Dec.19	Final value Dec.19 @$6.80	Cost of 499 lbs. concentrates @ $2.00	Cost to Produce acre of soybeans	Total cost to produce 267 lbs. gain	Returns for feed and beans per pig	Result of hogging soy beans per acre.
450#	$47.84	267#	717#	$48.76	$9.98	$16.94	$26.92	Loss $8.67	Loss $26.00

How much of the above result was due to change in price? $ 17.24

How much of the above result was due to profit or loss on gains? $ 8.76

Cost per 100 pounds gain? $ 10.08 Total $ 26.00

HOGGING DOWN CORN - A PROBLEM. NO. 2

Answer to Problem No. 2.

On July 20, a farmer has an average acre of corn which will yield 20.5 bushels per acre. He also has four hogs which weigh 507 pounds or an average of 126.75 pounds each, which he turns in the field in which is a self feeder supplied with fish meal and minerals.

On September 18, sixty days later, the corn being cleaned up, and also 100 pounds of fish meal eaten, he sells the hogs at the current market price, they having gained 293 pounds during the period.

Initial weight July 20	Initial value July 20 @$10.29	Gain on the acre of corn	Final weight Sept. 19	Value Sept.18 @$10.63	Cost of 100# Fish meal @$3.50	Cost to produce acre of corn	Total cost to produce 293# gain	Returns for fish meal and corn	Returns for corn per acre per bushel
507#	$52.17	293#	800#	$85.04	$3.50	$18.10	$21.60	$32.87	A. $29.37 Bu. $ 1.43

How much of the above result per acre was due to change in price? $1.72

How much of the above result per acre was due to profit or loss on gains $9.55

Cost per 100 pounds gain? $7.37 PROFIT $11.27

WINTER AND SPRING FEEDING OF SHOATS

Answer to Problem No. 3

On December 15, a farmer has ten shoats which have just finished gleaning the soy bean and peanut fields. They average 80 pounds each and are "oily".

He also has a crib of corn, the market price of which is $1.00 per bushel, which, as his yield was only twenty bushels per acre, cost him about $1.00 per bushel to produce. He puts them on full feed for a period of 100 days, or until April 4, during which time they eat the following feed: fish meal 507 lbs; corn 5191 lbs. (92.7 bu.); wheat shorts 247 lbs; and gain 1450 lbs. in weight.

Initial weight & value Dec.25 @$6.80	Final weight & value Apr.4 @$10.13	Gain for period & value @$10.13	Average gain per pig and value @$10.13	Cost of fish meal & shorts	Total feed and cost	Feed and cost per 100# gain	Net returns above feed cost	Average net returns per pig	Returns per bushel of corn
800# $54.40	2250# $227.92	1450# $146.88	145# $14.69	$22.69	5945# $115.39	410# $7.96	$58.13	$5.81	$1.63

How much of the result per pig was due to change in price? $ 2.66

How much of the result per pig was due to profit or loss on gains? $ 3.15

Problem No. 1 illustrated a loss per pig of $8.67 through selling them "oily" at the wrong time of the year. TOTAL $5.81

$5.81 is the profit from this method. What is the difference? $14.48

SELLING BARBECUE PIGS

A Problem. No. 4.

On January 15, a farmer has 10 shoats which weigh 750 pounds, or an average of 75 pounds each; they will dress 50 pounds each.

He can sell them on the local market for 20 cents per pound dressed or he can add 125 pounds in twelve weeks at a feed cost of seven cents per pound thus having them ready for sale April 9, at 200 pounds.

Conditions during January indicate a price of 12 cents per pound on foot during April.

Value of pigs January 15	$100.00
Cost of 1,250 pounds gain during 12 weeks	$ 87.50
Cost of 2,000 pounds April 9	$187.50

Value of hogs April 9, 2000 pounds @ 12¢	$240.00
What is the profit or loss from continued feeding?	$ 52.50 Profit

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They will dress 75% of their live weight and he is offered 16 cents per pound dressed; what are they worth at that price? $240.00

If sold in April on foot weighing 2000 pounds, what is the lowest price at which they would pay for the feed? $ 9.38