

Mississippi Agricultural Experiment Station.

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PORK PRODUCTION AT THE DELTA STATION.

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### INTRODUCTION.

It is our purpose in this circular, to report briefly, but in detail, the work with hogs at the Delta Station during the year. It is not expected that this report will add materially to the numerous careful feeding experiments reported from the different Stations; but as we have raised and marketed a bunch of one hundred and twenty-two pigs, under ordinary farm conditions, at a nice profit, and as all details of the management are given, and also the pasture rotation, which furnished grazing every day in the year, it is hoped that our farmers will get some useful information as to details of management and suitable pasture crops that will be of material help.

### RESULTS.

We marketed during October, November, and December one hundred and twenty-two pigs, receiving for the lot \$1,382.50. They were the produce of ten sows, farrowing two litters a year. The fall pigs were farrowed from September 20th, to October 10th, and the spring litters from March 18th, to April 22nd. They were marketed at an average age of about ten months. Thirty-two were sold on foot and averaged 175 1-2 pounds. Eighty-five were dressed and averaged 135 3-8 pounds.

The financial statement showing proceeds of sale, cost of production, and net profit, is as follows:

|                                                            |            |
|------------------------------------------------------------|------------|
| 32 pigs, average live weight 175 1-2 pounds, at 6c.....    | \$ 336.90  |
| 85 pigs, average dressed weight 135 3-8 pounds, at 8c..... | 920.50     |
| 5 gilts, sold for breeding purposes, at \$25.00.....       | 125.00     |
|                                                            | <hr/>      |
| Total proceeds.....                                        | \$1,382.50 |

#### EXPENSES.

|                                             |           |
|---------------------------------------------|-----------|
| 265 bushels of corn at 70c.....             | \$ 185.50 |
| 260 bushels of corn (estimated) at 65c..... | 169.00    |
| 3 tons of shorts at \$25.00.....            | 75.00     |
| Rent on 13 1-2 acres of land at \$6.00..... | 81.00     |
| Seed used on pasture lots.....              | 29.50     |
| Preparing and seeding pasture lots .....    | 39.50     |
|                                             | <hr/>     |
| Total expense.....                          | \$ 579.50 |

|                 |           |
|-----------------|-----------|
| Net profit..... | \$ 803.00 |
|-----------------|-----------|

If the five gilts, which averaged 196 pounds,

|                                                      |           |
|------------------------------------------------------|-----------|
| had been sold at 6c, net profit would have been..... | \$ 736.80 |
|------------------------------------------------------|-----------|

The corn in the above expense account, which is estimated, was grown on thirteen acres of land after a crop of oats had been harvested. Peas were planted in the corn, and the hogs were turned in the field in the fall, eating the peas and corn together. In order to get the peas planted in time to mature, the corn was given only one working and twenty bushels per acre is a fair estimate of the yield.

#### MANAGEMENT OF HERD.

The boar is kept in a separate lot, and the sows are bred to farrow in the spring and fall. The litters should be as near the same age as possible, as they can be handled and fed together to better advantage.

Each sow has a separate stall, six by eight feet, with a small lot adjoining. A few days before farrowing the sow is placed in the house, with access to the lot, and kept there until the pigs are about two weeks old; the gate is then left open and the sow and pigs go out to pasture at will, using the house as a sleeping quarter.

A box of hard-wood ashes and salt is kept in a dry place, accessible to the hogs at all times. No medicine nor stock food is used,

but regular attention is given to keep the herd free from lice. This we consider very important, as young pigs will not thrive when infested with lice. A cheap soap is stirred in boiling water, and to two gallons of this mixture one quart of kerosene oil is added. This is applied with an old broom as often as is necessary. In addition, a little kerosene oil is sprinkled on the floor of the sleeping quarters when cleaned.

Another important detail of the management is to keep the sleeping places free from dust. The houses have plank floors, and these are swept at regular intervals.

The actual work required to care for the hogs was small. The careful attention to details at the proper time is the important thing necessary.

### PASTURES.

Our pasture rotation, which furnishes grazing all the year, consists first of a Bermuda lot in which the houses are located, and which contains shade and water. If a mixture of Burr and White clover is sown on the sod in the fall, this part of the pasture will be greatly improved.

Opening from this are three lots of four and a half acres each; two of these are seeded to Dwarf Essex rape and Red clover early in September. The other lot is planted in wheat and vetch in September or October. The wheat lot is plowed in April and planted in sorghum in drills and cultivated.

In addition to these pastures, every acre of corn is planted in peas, very thick, at the last working of the corn, and the entire field is fenced to permit the grazing of the pea field after the corn is harvested.

The rape will be ready to graze in thirty to forty days after seeding and will furnish grazing all winter. When the rape is gone in the spring, the clover, sown with it in the same lot, will furnish grazing until the latter part of July, when the hogs can be turned into the sorghum lot.

Six pounds of rape and ten pounds of clover seed, per acre, should be sown. The land must be plowed some time before seeding and kept well disced and harrowed. Prepare seed bed as for turnips and cover with a smoothing harrow.

The Orange variety, or a similar kind, of sorghum should be grown, as the stalks grow larger and contain more nutriment than the Amber. Two plantings of sorghum should be made, one very

early in April, the other about three weeks later. Turn hogs on when the heads are beginning to turn brown on the early planting.

One-half bushel each of wheat and Hairy vetch should be sown together, and this lot should be seeded as early in the fall as possible.

The hogs should have access to both the rape and wheat lots during the winter, as they like a variety. If the wheat and vetch lot is not kept grazed down by the hogs, other stock may be turned in when the ground is dry.

We wish to urge the necessity of plowing early, and, of keeping well disced and harrowed, land that is to be planted to fall crops. Not only is this necessary for a good seed bed, but, owing to our dry falls, sufficient moisture to germinate the seed will not be available unless this plan is followed.

We also urge that rape be planted on rich land, or that it be made rich by a liberal application of stable manure. Rape will not grow successfully on poor land.

The above rotation is suitable to the Yazoo-Mississippi Delta and similar alluvial lands of our State which grow red clover. It will, we think, be successful in the prairie section of the state. Where alfalfa is being grown for hay, the meadows may also be used as a hog pasture, provided too many are not turned in. In other words, the alfalfa should be considered primarily as a hay crop and incidentally as a hog pasture.

For the hill section of the state, we suggest that two lots be sown to wheat and vetch and one to rape, the rape lot to be plowed in the spring and planted in sorghum. If these lots are not grazed too early, the wheat will mature, the hogs preferring the vetch after the wheat begins to joint, and the grain will furnish good feed. A beardless variety of wheat should be planted.

We again insist that the rape must be planted on rich, well prepared land. This plant is not particular about the character of land on which it grows, provided the land is rich.

#### FEEDING.

The sows are fed a little shorts in addition to corn, after farrowing, while they are kept in the farrowing pens. After two weeks they are turned back into pasture and are fed corn only. The pigs are fed corn and shorts as soon as they will eat, the shorts being fed until the pigs are about three months old, each pig getting about fifty pounds.

They are also fed liberally of corn while small, the idea being to give them a vigorous start that they may make good use of the pasture, which, after all, is the cheapest factor in pork production.

Up to the time the pigs were turned into the pea field in September to be fattened, they had eaten an average of 122 pounds of corn and fifty pounds of shorts each. From September until they were sold, they had the peas from a corn field of fifty-three acres (except eighty bushels picked for seed) and thirteen acres of corn, planted after oats, estimated, as stated above, at two hundred and sixty bushels. The peas and corn were harvested by the hogs, which method saved labor and left the manure where it was needed.

The above statement of feed consumed included what the sows ate.

### HOUSES AND FENCES.

The houses consist of a row of stalls, six by eight feet, six feet high on the front and four feet on the back, floored. They were built by the farm hands out of cheap lumber, and are inexpensive but are sufficient for this climate. The small lots are fenced with one by six plank. The pasture fence consists of woven wire below and barbed wire above. In order to have a good wire fence, the corner posts must be large, set deep in the ground, and well braced. The wire should then be stretched tight, very tight. The best time to stretch wire is in the summer on a hot day. If put up in winter in cold weather, it will become somewhat slack in hot weather. The best adjunct of the fencing proposition is a good pasture on the inside.

We do not ring the hogs. It has been our experience that hogs kept on pasture all the time will do very little damage by rooting.

### BREEDS.

In respect to the superiority of the different breeds, we do not advise, not having made any comparative tests. We are using Berkshires, the boar and most of the sows being pure bred.

It will be noticed, by referring to the figures given above, that the market weights of the hogs were light for the age; but the amount of grain fed the pigs up to the time they were turned into the pea field to be fattened was also small. It is an open question whether it would have been more profitable to have fed more grain on pasture. We intend to test this next year by growing larger hogs at a greater cost, and will report the results in due time.

**VALUE OF COWPEAS IN THE CORN FIELD.**

We wish to call particular attention to the importance of a pea field, planted in corn at the last working, as a factor in cheap pork production. We made an experiment last fall to determine the value of such a pasture, the result of which should be very gratifying to Southern farmers, who have a monopoly on such a pasture. The Northern farmer cannot grow peas planted in corn, but must give them the use of the land during the entire growing season.

After the corn was gathered, fifty-one spring pigs were turned into the pea field of seventeen acres. They had no additional feed. The gain made from the peas was 2893 pounds, or 170 pounds per acre. At 6c per pound, this gives a value for the peas of \$10.20 per acre. And this is net, as the hogs did their own harvesting. Also the manure and humus from stalks, vines and seed were left on the land. By tests made at the Station for two years to determine the value of peas grown in corn, as a fertilizer, it has been found that they increase the succeeding cotton crop by 110 pounds of lint per acre. The land used was old and had been cropped continuously in cotton. A prolific short variety of cotton was used in the test. Figuring the increase at 9c per pound, the peas had a fertilizing value of \$9.90 per acre. The above eloquently suggests a means of improving our lands, worn by a one-crop system, at a profit instead of an expense.

The fertilizing value of peas will not be so great as this on the hill lands, which are deficient in phosphorus, but they must be relied on there to largely supply the nitrogen, while the phosphorus must be supplied.

On our Delta lands, the supply of phosphorus and of potash seems to be abundant, hence the wonderful effect of the peas.

After all, the question of richer lands is the biggest problem that confronts the Mississippi farmer, and the hog is not to be overlooked in its economical solution.

**SUMMARY.**

Some of the important features of the work which contributed to our profit may be recalled:

First. At farrowing time the sows were separated and given comfortable quarters, and the young pigs were given extra attention.

Second. The herd was kept free from lice, and were not allowed to sleep in dusty beds.

Third. Good pastures were provided all the year, thus insuring large, strong litters, and a healthy herd, and also cheap pork.

Fourth. The farm is fenced, making it possible to fatten the hogs largely on peas planted in the corn as a catch crop for fertilizing purposes. This crop gives the South a distinct advantage over other sections, and this feature of the work cannot be too strongly urged. The fact that the peas can be converted into money without any cost of harvesting should add an additional incentive to grow more corn and peas and thus improve the land, handle the farm with less labor, and keep the cotton money at home. We are blessed by being able to raise cotton, the greatest staple money crop of any section. Let us make the most of this privilege by raising our hay, corn and hogs, in order that our cotton money may be our own.

The Delta Station asks that more consideration be given the Mississippi hog.