

OKLAHOMA  
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AGRICULTURAL EXPERIMENT STATION  
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Preparation of  
Kafir Corn and Wheat  
*for*  
Swine Feeding

VALUE OF YEAST IN SWINE FEEDING

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## PREPARATION OF KAFIR CORN AND WHEAT FOR SWINE FEEDING

There has been a greater fluctuation in the number of hogs kept on the farms of Oklahoma than in the strictly corn-belt states due to the fact that the corn crop in this state is somewhat uncertain. There has been, however, a steady increase in the acreage of grain sorghum in the state until, according to the latest report of the State Board of Agriculture, there is almost 50 percent as much grain sorghums in the state annually as corn. Cooperative experiments conducted by the Department of Crops and Soils show that better yields of grain sorghums are obtained on upland, both in the eastern and western parts of the state, than are obtained with corn. Due to the increased amounts of kafir corn and other grain sorghums that are being produced, a large number of inquiries are received by the College in regard to information as to the best method of preparing and feeding these feeds.

In 1923 a series of experiments was started with kafir corn and wheat to try to throw more light on the subject. The purpose of this bulletin is to give the results of this series of experiments. Bulletin No. 148 gives the results of previous work done at this station on barley, wheat, cane, etc.

### TEST NO. 1

On September 23, 1923, thirty-five head of shoats, approximately 6 months of age and weighing on an average 115 pounds, were divided into seven lots of five head each. These pigs were of spring farrow and had been grown on pasture with a small amount of grain during the summer. They had fairly large frames, but were quite thin in flesh. The various lots of pigs were fed the following rations:

- Lot I. Whole wheat and tankage, hand-fed.
- Lot II. Whole wheat and tankage, soaked 12 hours, hand-fed.
- Lot III. Whole wheat and tankage, free-choice.
- Lot IV. Ground wheat and tankage, free-choice.
- Lot V. Ground wheat and tankage, dry, hand-fed.
- Lot VI. Ground wheat and tankage, moist, hand fed.
- Lot VII. Ground wheat and tankage, soaked, hand-fed.

With the exception of the free-choice lots, tankage was supplied at the rate of 1 pound of tankage to 20 pounds of wheat. It will be observed that where the pigs were allowed to select their own feed, they consumed approximately 1 pound of tankage to 15 pounds of wheat. Where the ground wheat was fed moist, it was moistened just before feeding and made into a thick slop. In the cases where the wheat was soaked, it was soaked for twelve hours, or from one feed to the next.

The whole wheat was figured at \$1.66 per hundred; ground wheat at \$1.83 per hundred and tankage at \$3.00 per hundred. These prices would range a little higher than the current prices on farms at that time, but were the prices paid by the College delivered at the hog barn.

The following table gives briefly the results of this experiment:

### SUMMARY OF RESULTS

There were not a sufficient number of hogs in each lot to justify positive conclusions, but may be considered fairly indicative of what we might expect with feeds prepared as they were in this experiment.

1. Soaking whole wheat did not prove an efficient method as it required 19 per cent more whole soaked wheat to produce 100 pounds of gain than whole dry wheat.

2. Grinding increased the feeding value of wheat approximately 15 per cent when the ground wheat was fed moist, but only affected a saving of 7

percent when the ground wheat was fed dry. Ground dry wheat seemed to be too pasty to give best results.

	I	II	III	IV	V	VI	VII
	Whole Wheat Tankage, Hand Fed	Whole Wheat Tankage Soak- ed 12 Hrs., Hand Fed	Whole Wheat Tankage, Free Choice	Ground Wheat Tankage, Free Choice	Ground Wheat Tankage, Dry, Hand Fed	Ground Wheat Tankage, Moist, Hand Fed	Ground Wheat Tankage, Hand Soaked, Hand Fed
Length of Feeding Period	51	51	51	51	51	51	51
Lot No.	1	2	3	4	5	6	7
Pigs Per Lot	5	5	5	5	5	5	5
Ave. Initial Wt.	116.6	120.6	118.4	121	111	118.4	115
Ave. Final Wt.	209	216	199	241	212	230	230
Ave. Total Gain	92.2	95.4	80.8	120.2	101	111.6	115.
Ave. Daily Gain	1.8	1.87	1.58	2.35	1.98	2.18	2.25
Feed Consumed Per Head Daily:							
Wheat	7.7	9.4	6.7	7.5	8	7.8	9
Tankage	.35	.48	.45	.48	.40	.39	.45
Total	8.05	9.88	7.15	7.98	8.4	8.19	9.45
Feed Required for 100 lbs. Gain:							
Wheat	425	507	424	323	407	359	403
Tankage	20	25	28	24	20	19	20
Total	445	532	452	347	427	378	423
Cost 100 lbs. Gain	\$7.65	\$9.17	\$7.88	\$6.63	\$8.05	\$7.14	\$7.97

Experiment Started September 23, 1923.

Experiment Completed November 13, 1923.

3. Soaking ground wheat did not improve its value over moistening just before feeding. As a matter of fact, more soaked ground wheat was required to produce 100 pounds of gain than either moist or dry ground wheat.

4. The self-feeder proved to be very efficient when ground wheat was used, but when whole wheat was fed from the self-feeder, it required more feed to produce 100 pounds of gain than when the wheat was fed by hand. The difference was so slight, however, that it is of very little importance.

5. From this brief study, we would recommend that when wheat is fed to hogs, the best results will probably be secured when the wheat is ground or rolled and fed moist or in the form of a thick slop.

#### EXPERIMENT NO. 2

On June 3, 1924, thirty-two head of hogs were divided into six lots, four lots containing five hogs each and two lots containing six hogs each. The hogs used in this experiment were purchased from a farmer living near Stillwater, and were approximately one year old when put on feed. They had been running on alfalfa pasture with very little grain, and had extremely large frames and were quite thin in flesh. The condition of the hogs accounts for the very rapid gains and the exceedingly economical use made of their feed during the course of the experiment. Due to the weight of the hogs when placed on feed, they were fed only forty days.

Many inquiries had been received by this department relative to the feeding value of yeast in connection with small grains. In order to test its value, the feed for two lots was fermented by soaking twelve hours with yeast.

Lot 1 was used as a check lot and fed whole kafir corn and tankage. Tankage was given to all lots at the rate of 1 pound of tankage to approximately 14 pounds of kafir corn.

Lot II received whole kafir corn and tankage, the same as Lot I, with the exception that it was soaked for twelve hours.

Lot III received whole kafir corn and tankage, soaked and fermented with yeast twelve hours.

Lot IV received ground kafir corn and tankage, hand-fed, dry.

Lot V received ground kafir corn and tankage, soaked for twelve hours.

Lot VI received ground kafir corn and tankage fermented with yeast and soaked twelve hours.

One pig in Lot II did not do well and was taken out of the experiment at the end of two weeks and allowance made for the amount of feed consumed up to that date.

Feeds for this experiment were secured at the following prices which were the current prices for such feeds at Stillwater:

Threshed kafir corn, \$1.90 per hundred

Ground kafir corn, \$2.02 per hundred

Yeast, 80 cents per pound

Tankage, \$2.50 per hundred.

The yeast in this experiment was furnished by the Fleischmann Yeast Company free of charge, but was charged against the experiment at their retail price.

The following table gives detailed results of this experiment:

	Whole Kafir C. Dry and Tankage	Whole Kafir C. Soaked and Tank- age	Whole Kafir C., Soaked Tankage and Yeast	Ground Kafir C. Dry and Tankage	Ground Kafir C. Soaked and Tankage	Ground Kafir C. Soaked, Tankage and Yeast
Length of Feeding Period	40	40	40	40	40	40
Lot Number	1	2	3	4	5	6
Pigs Per Lot	6	4	6	5	5	5
Av. Initial Wt.	149.5	159	146	153.5	152.6	154
Av. Final Wt.	244	262	237	261	260	256
Av. Total Gain	94.6	103.5	93.6	107.8	107.6	102.4
Av. Daily Gain	2.36	2.58	2.34	2.69	2.69	2.56
Average Feed Consumed Daily:						
Kafir Corn	7.7	9.32	7.73	8.12	8.13	8.15
Tankage	.55	.66	.55	.58	.59	.58
Yeast	.....	.....	.02	.....	.....	.022
Total	8.25	9.98	8.3	8.7	8.72	8.752
Feed Required for 100 lbs. Gain:						
Kafir Corn	323.9	358	332	307.5	303	320
Tankage	23.1	26	24	22	22	23
Yeast	.....	.....	.8	.....	.....	.88
Total	347	384	356.8	329.5	325	343.88
Cost of 100 lbs. Gain	\$7.05	\$7.45	\$7.55	\$6.76	\$6.67	\$7.73

Test Started June 3, 1924.

Test Completed July 12, 1924.

#### SUMMARY

1. As was the case with wheat in the preceding experiment and barley in an experiment reported in Bulletin 148, soaking whole kafir corn decreased its feeding value approximately 10 percent.

2. Fermenting soaked kafir corn with yeast increased the feeding value about 7 percent over soaking without yeast, but soaking kafir corn with yeast was about 3 percent less efficient than dry, whole kafir corn.

3. Grinding in this test showed a saving of less than 6 percent in the feeding value of kafir corn.

4. Soaking ground kafir corn for twelve hours did not improve its feeding value, but made it slightly more palatable. When ground kafir corn was fermented with yeast, 5 percent more kafir corn was required to produce 100 pounds gain than when no yeast was used.

5. From the results of this test, we would recommend that kafir corn be ground if grinding will not cost over 7 percent to 10 percent of the value of the feed.

6. Soaking whole kafir corn does not seem to be a profitable practice. When whole kafir corn was soaked, the hogs appeared to swallow more of it whole than when it was fed dry. There is no advantage in soaking ground kafir corn. Moistening would, no doubt, improve the palatability of ground kafir corn.

7. Yeast has no value as a feed for hogs, according to the results secured in this test. In each case yeast increased the cost of producing 100 pounds of gain.

## EXPERIMENT NO. 3

On January 1, 1925, 63 head of shoats about 5 months of age and averaging approximately 90 pounds per head were divided into nine lots, seven to the lot, and fed on kafir corn and tankage prepared in different ways. These shoats were good thrifty pigs with good frames but not fat. They were pure-bred Poland Chinas. These pigs were fed for 57 days. One pig in Lot 2 became injured during the course of the experiment and had to be removed.

All lots with the exception of the self-fed lots received one pound of tankage to every 10 pounds of kafir corn.

The following table gives the results of this test:

## EXPERIMENT NO. 3

	Ground Kafir Corn Self-fed	Ground Kafir Corn Hand- fed Dry	Ground Kafir Corn Hand-fed Soaked	Ground Kafir Corn and Yeast Soaked	Whole Kafir Corn Hand- fed	Whole Kafir Corn Soaked	Whole Kafir Corn and Yeast Soaked	Whole Kafir Corn Self-fed	Kafir Corn Heads dry
Lot Number	1	2	3	4	5	6	7	8	9
Days Fed	57	57	57	57	57	57	57	57	57
Pigs Per Lot	7	6	7	7	7	7	7	7	7
Av. Initial Wt.	92.8	86	89	89.4	94.8	91.8	89.7	77.5	93.4
Av. Final Wt.	208	176	183	174	173	178	176	190	164
Av. Total Gain	115	90	96	85	79	87	86	112	70
Av. Daily Gain	2.	1.58	1.68	1.49	1.38	1.52	1.50	1.96	1.22
Average Feed Consumed Daily:									
Kafir Corn	5.83	4.98	3.99	4.7	3.39	5.56	3.02	5.83	3.99
Tankage	.86	.45	.36	.46	.44	.50	.28	.89	.36
Yeast									
Total	6.69	5.43	4.35	5.16	3.83	6.06	3.30	6.72	4.35
Feed Required for 100 lbs. Gain:									
Kafir Corn	287	283.5	290	343.75	351	361	320	294	321
Tankage	42	28.5	29	31.25	32	33	29	45	29
Yeast				1.			1		
Total	329	312.	319	376.	383	394	350	339	350
Cost of 100 lbs. Gain	\$7.27	\$6.72	\$6.82	\$7.84	\$7.51	\$7.84	\$7.72	\$7.02	\$5.68

Experiment started January 1, 1925.

Experiment finished February 26, 1925.

Lot 1 was fed ground kafir corn and tankage in the self-feeder, free choice. This lot consumed 1 pound of tankage to every 6.7 pounds of kafir corn.

Lot 2 was hand-fed dry ground kafir corn and tankage.

Lot 3 was hand-fed on ground kafir corn and tankage that had been soaked for 12 hours.

Lot 4 was hand-fed on ground kafir corn and tankage that had been fermented with yeast for 12 hours.

Lot 5 received whole kafir corn and tankage hand-fed.

Lot 6 was hand-fed on whole kafir corn and tankage that had been soaked for 12 hours.

Lot 7 was fed on whole kafir corn and tankage that had been fermented for 12 hours with yeast.

Lot 8 received whole kafir corn and tankage in the self-feeder, free choice. These pigs consumed 1 pound of tankage to every 6.5 pounds of kafir corn.

Lot 9 was fed kafir corn in the head, fed on cement floors.

In figuring results, the kafir corn heads were figured on the threshed kafir corn basis. The yeast used in this experiment, the same as in Experiment No. 2, was furnished gratis by the Fleischmann Yeast Company but was charged against the experiment at the retail price of 80 cents per pound.

The prices for feeds used in this test were as follows:

Kafir corn heads, threshed kafir basis, \$1.77 per cwt.  
Threshed kafir corn, \$1.85 per cwt.  
Ground kafir corn, \$2.02 per cwt.  
Tankage, \$3.50 per cwt.  
Yeast, 80 cents per pound.

#### SUMMARY

In both cases where the self-feeder was used, the hogs consumed considerable more tankage than where it was allotted to them in the ration. The self-feeder did not prove to be of any particular advantage in this test.

Hand-feeding ground kafir corn dry proved just as efficient as soaking ground kafir corn. Fermenting ground kafir corn with yeast caused a loss of approximately 20 percent in its feeding value.

While soaking does not appear to improve the feeding value of ground kafir corn, moistening before feeding would probably be a satisfactory practice.

Sixteen percent more whole kafir corn was required to produce 100 pounds gain than of ground kafir corn.

Soaking in this experiment decreased the value of kafir corn about 3 percent.

Fermenting of whole kafir corn increased its feeding value about 8 percent over whole kafir corn fed dry. This saving was more than offset, however, by the added cost of the yeast.

Self-feeding of whole kafir corn effected a saving of 11 percent and increased the rate of gains but due to the fact that these hogs consumed a larger percentage of tankage the gains were more expensive.

The lot fed on kafir corn heads made remarkably cheap gains although the rate of gain was slow and the hogs in this lot were not finished at the end of the experiment. The cost of gain in this lot was less than on any other lot.

The results in our next two trials were not as favorable for kafir corn heads as in this test. When the cost of grinding was considered, it was found that kafir corn threshed and hand-fed or kafir corn ground and hand-fed either dry or moist proved to be the most economical.

Yeast in this experiment, as in the other, proved of little or no value as a hog feed.

#### EXPERIMENT NO. 4

This experiment was started on March 25, 1926, and completed on May 25, 1926. There were eleven lots of hogs, and at the beginning of the experiment, there were seven and eight hogs per lot. One of the hogs in Lot II had to be removed during the course of the experiment, leaving six hogs in this lot. The hogs used in this experiment were farrowed in September and October and were approximately six months old when put on feed. The average weight of the hogs was approximately 80 pounds, but as they had very large frames and were rather thin in flesh, they made very satisfactory gains.

Local prices for feeds used in the experiment were as follows:

Kafir corn heads, \$1.60 per hundred (for grain)  
 Threshed kafir corn, \$1.68 per hundred  
 Ground kafir corn, \$1.85 per hundred  
 Yeast, 80 cents per pound  
 Tankage, \$3.50 per hundred

In all lots in this experiment, one part of tankage to eleven parts of kafir corn was used. Where the self-feeder was used, the kafir corn and tankage were mixed before being placed in the self-feeder.

The various lots received the following rations:

- Lot I Ground kafir corn, hand-fed, dry.
- Lot II Ground kafir corn, hand-fed, moist.
- Lot III Ground kafir corn, soaked 12 hours.
- Lot IV Ground kafir corn, fermented with yeast 12 hours.
- Lot V Ground kafir corn, self-fed.
- Lot VI Whole kafir corn, dry.
- Lot VII Whole kafir corn, soaked 12 hours.
- Lot VIII Whole kafir corn, fermented with yeast 12 hours.
- Lot IX Whole kafir corn, self-fed.
- Lot X Kafir corn heads, dry, fed on cement floor.
- Lot XI Kafir corn heads, soaked 12 hours, fed on cement floor.

The following table gives detailed results of this experiment:

#### SUMMARY

1. It is interesting to note that in all five lots, receiving ground kafir corn, there was very little difference in the amount of feed required to produce 100 pounds of gain.
2. The lot receiving ground kafir corn, self-fed, and the lot receiving ground kafir corn, dry, hand-fed, made the most economical gains.
3. The most rapid gains, however, were made in the lot receiving ground kafir corn, moistened before feeding.
4. The feeding of yeast in this experiment with ground kafir corn increased the cost of gain, but did not decrease the amount of feed required to produce 100 pounds of gain.
5. The grinding of kafir corn in this test effected a saving of 13 percent over feeding whole kafir corn.
6. In this experiment, a very slight advantage was shown in favor of soaking whole kafir corn over feeding it dry.
7. Of seven or eight tests run with the small grains, this is the only one that showed any advantage in favor of soaking, and this was so slight that it is of little consequence.
8. With whole kafir corn as well as ground kafir corn, the self-feeder gave the most economical results.
9. The addition of yeast did not increase the efficiency of the kafir corn, and quite materially increased the cost of gains.
10. Both lots receiving kafir corn heads made fairly satisfactory gains and produced gains on less feed than the other lots.
11. Considering the cost of threshing and grinding, the most economical gains were made in the lots receiving kafir corn heads, but these hogs did not have the finish of the others.

#### RECOMMENDATION

In each case in this experiment grinding proved to be a profitable way of preparing kafir corn.

Kafir corn can be satisfactorily fed in the heads if a feeding floor or good solid ground is available.

It is doubtful whether it would pay to soak kafir corn heads, particularly if they are to be fed on the ground.

	Ground K. C. dry	Ground K. C. moist	Ground K. C. soaked	Ground K. C. soaked yeast	Ground K. C. self-fed	Whole K. C. dry	Whole K. C. soaked	Whole K. C. soaked yeast	Whole K. C. self-fed	K. C. Heads dry	K. C. Heads soaked
Lot Number .....	1	2	3	4	5	6	7	8	9	10	11
Pigs Per Lot .....	7	6	7	7	7	8	7	8	7	8	7
Average Initial Weight .....	81.4	84.1	81	80.4	80.3	81.3	80.8	81.3	83.6	81.2	80.8
Average Final Weight .....	187.8	216.7	191	187.6	207	181	190	188.7	188	161.7	161.3
Average Total Gain .....	106.4	132.6	110	107.2	126.7	99.7	109.2	107.4	104.4	80.5	80.5
Average Daily Gain .....	1.77	2.21	1.83	1.78	2.11	1.66	1.82	1.79	1.74	1.34	1.34
Daily Consumption of Feed .....	6.02	7.57	6.38	6.16	7.18	6.42	6.79	6.68	6.25	4.41	4.44
Feed Required to Produce 100 lbs. Gain:											
Kafir Corn .....	321.85	324.78	329.82	326.61	322.12	366.49	353.56	353.93	340.27	311.67	313.5
Tankage .....	29.25	29.52	29.98	29.69	29.28	33.31	32.14	32.17	30.93	28.33	28.5
Yeast .....				.90				1			
Total .....	351.1	354.3	359.8	357.2	351.4	399.8	385.7	387.1	371.2	340.0	342.0
Cost of 100 lbs. Gain .....	\$6.97	\$7.06	\$7.15	\$7.80	\$6.97	\$7.33	\$7.06	\$7.87	\$6.80	\$5.98	\$6.01



Yeast did not prove of any value and it adds to the cost of producing pork.

If the self-feeder is to be used in feeding kafir corn, it will probably be better to mix the kafir corn and protein supplement in right proportions before placing it in the self-feeder to prevent the hogs from eating more of the protein supplement than is necessary.

#### EXPERIMENT NO. 5

On November 24, 1926, an experiment was started to determine the effect of feeding hogs for 60 days on kafir corn heads and finishing them on ground kafir corn for 30 days. This experiment was completed on February 21, 1927.

Three lots of hogs were used. Lots I and III contained 10 head of hogs each and Lot II eleven head. The hogs were six months old and weighed on an average of approximately 125 pounds each. They were carrying considerable fat when put on the experiment. This coupled with the fact that only 1 pound of tankage was fed to every 14 pounds of grain probably accounts for the rather large amount of feed necessary to produce 100 pounds of gain in this feeding trial. The feed required for 100 pounds of gain where soaked kafir corn heads were used was especially high.

Kafir corn heads (for grain) were figured at 92 cents per hundred in this experiment. Ground kafir corn cost \$1.17 per hundred; tankage, \$4.00 per hundred, and yeast 80 cents per pound.

The following table gives the results of this experiment:

#### EXPERIMENT NO. 5

	Soaked Kafir C. Heads and Yeast 60 days, Ground Kafir C. and Yeast 30 days	Soaked Kafir C. Heads 60 days and Ground Kafir Corn 30 days	Dry Kafir Corn Heads 60 days and Ground Kafir Corn 30 days
Lot Number .....	1	11	111
Pigs Per Lot .....	10	11	10
Average Initial Weight .....	124.5	123.8	125
Average Weight January 24th .....	186.9	173.8	193.3
Average Gain First 60 Days .....	62.4	50.00	68.3
Average Daily Gain First 60 Days .....	1.04	.833	1.14
Average Weight, 90 Days .....	248.4	228	245.7
Average Gain Last 30 Days .....	61.5	54.2	52.4
Average Daily Gain Last 30 Days .....	2.05	1.81	1.75
Average Feed Consumed First 60 Days .....	7.28	6.62	6.51
Average Feed Consumed Last 30 Days .....	10.97	10.94	10.33
Feed Required for 100 lbs. Gain First 60 Days .....	700	794	571
Feed Required for 100 lbs. Gain Last 30 Days .....	535	604	590
Feed Required for 100 lbs. Gain—90 Days:			
Kafir Corn .....	574.14	647.13	539.13
Tankage .....	44.16	49.77	41.47
Yeast .....	1.5		
Total .....	619.8	696.9	580.6
Cost of 100 lbs. Gain:			
K. C. Heads .....	\$ 9.18	\$ 8.96	\$ 6.51
Ground K. C. ....	8.53	8.28	7.30
Average .....	8.85	8.61	6.85
Average Total Gain—90 Days .....	123.9	104.2	120.7
Average Daily Gain—90 Days .....	1.376	1.157	1.34

Experiment Started November 24, 1926.  
Experiment Completed February 21, 1927.

#### SUMMARY

1. Considering the daily gains and feed required to produce 100 pounds of gain, it will be observed that the kafir corn heads, fed dry, were much superior to kafir corn heads, soaked, either with or without yeast.

2. Fermenting kafir corn heads with yeast gave slightly better results than soaking kafir corn heads without yeast, but 129 pounds more grain was

required to produce 100 pounds of gain, even where yeast was used than where the same kafir corn was fed in the dry form.

3. Where the kafir corn heads were soaked, the dust and dirt seemed to cover the heads making them unpalatable.

4. For the last thirty days, when each lot was changed to ground kafir corn fed moist, quite a saving was found in Lots I and II that had been receiving the soaked kafir corn heads, but no particular advantage was found in Lot III, receiving the dry kafir corn heads. In fact, slightly more ground kafir corn was required to finish these hogs than was required of the heads the first 60 days. This can probably be accounted for by the fact that these hogs were extremely well finished when the experiment closed.

5. Considering the cost of gains, it will be seen that Lot III, receiving dry kafir corn heads, finished on ground kafir corn, fed moist, made much more economical gains than either of the lots fed soaked kafir corn heads; those receiving the kafir corn heads, fermented with yeast, being the most expensive.

6. This experiment would indicate that soaking kafir corn heads is not a profitable procedure. Finishing hogs for 30 days that had been fed for 60 days on kafir corn heads was a profitable procedure as the cost of production was relatively low and finish satisfactory.

#### SUMMARY OF EXPERIMENTAL WORK WITH KAFIR CORN

The following table gives a summary of the work on the methods of preparing kafir corn for the past four years. Only the experiments that would give direct comparisons were used in this summary.

The prices paid for feeds were the current price for such feeds at Stillwater the first of April, 1927. Threshed kafir corn cost \$1.00 per hundred; kafir corn heads (for grain), 92 cents per hundred; ground kafir corn heads, \$1.17 per hundred; tankage, \$4.00 per hundred.

#### SUMMARY

1. Kafir corn fed in the head has not proven as efficient either from the standpoint of gains or cost of gain as threshed or ground kafir corn.

2. Soaking kafir corn heads has lowered the value of kafir corn 23 percent in the three experiments conducted.

3. Threshing kafir corn effected the saving of 33 percent in the amount of kafir corn required to produce 100 pounds of gain.

4. It required 7.4 percent more soaked threshed kafir corn than of dry threshed kafir corn to produce 100 pounds gain.

5. Grinding effected the saving of 8 percent in the amount of feed required to produce 100 pounds of gain.

6. Self-feeding of either whole or ground kafir corn was satisfactory, but gave results only slightly different from hand-feeding.

7. Fermenting whole kafir corn with yeast was only slightly superior to soaking whole kafir corn and did not give as good results as threshed kafir corn fed dry. Fermenting ground kafir corn with yeast caused a loss of 7.4 percent of its feeding value.

8. Yeast feeding proved unprofitable.

9. All the hogs excepting those fed on kafir corn heads made satisfactory gains, the most rapid gains being made by those receiving ground kafir corn.

10. Whether or not one can afford to grind kafir corn for hogs will depend upon the cost of grinding.

	Kafir Corn Heads dry	Kafir Corn Heads soaked	Threshed Kafir Corn self-fed	Threshed Kafir Corn soaked	Threshed Kafir Corn soaked and yeast	Threshed Kafir Corn hand-fed dry	Ground Kafir Corn hand-fed dry	Ground Kafir Corn self-fed	Ground Kafir Corn soaked	Ground Kafir Corn soaked and yeast
Number of Experiments .....	4	3	2	3	3	3	3	2	3	3
Total Pigs used .....	35	28	14	18	21	20	17	14	19	19
Average Initial Weight .....	109	108	80.5	102.4	102.5	103.9	99.98	86.5	102.7	103
Average Final Weight .....	189	169	189	201.4	198.2	198.2	200.8	207.5	206.2	200.5
Average Total Gain .....	80.6	62.4	108.2	99.3	96.1	94.48	100.9	120.8	104.2	97.75
Average Daily Gain .....	1.19	1.00	1.83	1.87	1.85	1.81	1.91	2.05	2.00	1.87
Total Feed Required for 100 lbs. Gain	502	619	355.1	388.5	366	374.4	330.6	340.2	335.6	360.6
Cost of 100 lbs. Gain .....	\$5.90	\$7.28	\$4.43	\$4.85	\$5.37	\$4.67	\$4.64	\$4.77	\$4.71	\$5.86

