VIRGINIA POLYTECHNIC INSTITUTE

GRAPHS OF

SWINE FEEDING

EXPERIMENTS

MAJOR ..

.. THESIS

Submitted for the degree of Master of Science in
Animal Husbandry

By
S.R. BAILEY

May - 1924
# INDEX

<table>
<thead>
<tr>
<th>CHART NO.</th>
<th>FEEDS USED</th>
<th>DAYS FED</th>
<th>STATE</th>
<th>BULLETIN NO.</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>(Index)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Corn and wheat</td>
<td>120</td>
<td>Missouri</td>
<td>136</td>
</tr>
<tr>
<td>3</td>
<td>Corn and tankage</td>
<td>107</td>
<td>Ohio</td>
<td>349</td>
</tr>
<tr>
<td>4</td>
<td>Corn and linseed meal</td>
<td>103</td>
<td>Ohio</td>
<td>349</td>
</tr>
<tr>
<td>5</td>
<td>Corn and fish meal</td>
<td>97</td>
<td>Ohio</td>
<td>349</td>
</tr>
<tr>
<td>6</td>
<td>Corn and ground soybeans</td>
<td>83</td>
<td>Ohio</td>
<td>349</td>
</tr>
<tr>
<td>7</td>
<td>Corn, tankage and alfalfa hay</td>
<td>83</td>
<td>Nebraska</td>
<td>175</td>
</tr>
<tr>
<td>8</td>
<td>Corn and alfalfa hay</td>
<td>103</td>
<td>Nebraska</td>
<td>124</td>
</tr>
<tr>
<td>9</td>
<td>Corn, shorts and alfalfa hay</td>
<td>112</td>
<td>Nebraska</td>
<td>175</td>
</tr>
<tr>
<td>10</td>
<td>Alfalfa pasture, corn and tankage</td>
<td>138</td>
<td>Illinois</td>
<td>247</td>
</tr>
<tr>
<td>11</td>
<td>Rope pasture, corn and tankage</td>
<td>138</td>
<td>Illinois</td>
<td>247</td>
</tr>
<tr>
<td>12</td>
<td>Corn and skim milk</td>
<td>82</td>
<td>Indiana and Ohio</td>
<td>137-349</td>
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</tbody>
</table>
MISSOURI SWINE FEEDING
CALCULATING COSTS PER 100 LB. GAIN

Average initial weight 91.2 pounds. Average of 2 trials using 17 hogs. 120 day feeding period. Total gain per hog 130 pounds. Average daily gain per hog 1.01 pounds.

<table>
<thead>
<tr>
<th>FEEDS USED</th>
<th>TOTAL CONSUMED</th>
<th>DAILY RATION (per hog)</th>
<th>FEED PER 100 LB. GAIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground wheat</td>
<td>3,069.5</td>
<td>3.02</td>
<td>273</td>
</tr>
<tr>
<td>Ground corn</td>
<td>3,069.5</td>
<td>3.02</td>
<td>273</td>
</tr>
</tbody>
</table>

Price of corn per ton
Price of corn per bushel

Total cost per 100 lb. gain

Price of wheat per ton
Price of wheat per bushel
OHIO SWINE FEEDING
CALCULATING COSTS PER 100 POUNDS GAIN

Average initial weight 68.3 pounds. Average of 3 trials using 16 hogs. 107 day feeding period. Total gain per hog 155.3 pounds. Average daily gain per hog 1.39 pounds.

<table>
<thead>
<tr>
<th>FEEDS USED</th>
<th>TOTAL CONSUMED</th>
<th>DAILY RATION (per hog)</th>
<th>FEED PER 100 LB. GAIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shelled corn</td>
<td>2,633.34</td>
<td>4.998</td>
<td>362</td>
</tr>
<tr>
<td>Tonkage</td>
<td>219.61</td>
<td>.416</td>
<td>30.1</td>
</tr>
</tbody>
</table>

Price of corn per ton
Price of corn per bushel

Total cost per 100 lb. gain

Price of tankage per ton

No. 3
### OHIO SWINE FEEDING

**CALCULATING COSTS PER 100 POUNDS GAIN**

Average initial weight 59.6 pounds. Average of 5 trials using 27 hogs. 103 day feeding period. Total gain per hog 124.4 pounds. Average daily gain per hog 1.194 pounds.

<table>
<thead>
<tr>
<th>FEEDS USED</th>
<th>TOTAL CONSUMED</th>
<th>DAILY RATION (per hog)</th>
<th>FEED PER 100 LB GAIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shelled corn</td>
<td>2,297.419</td>
<td>4.184</td>
<td>346.6</td>
</tr>
<tr>
<td>Linseed meal</td>
<td>349.296</td>
<td>0.653</td>
<td>54.5</td>
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</tbody>
</table>

*Price of corn per ton: $2.00  
Price of corn per bushel: $14

*Total cost per 100 lb gain

*Price of linseed meal per ton: $100

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*No. 4*
OHIO SWINE FEEDING
CALCULATING COSTS PER 100 POUNDS GAIN

Average initial weight 78 pounds. Average of 2 trials using 11 hogs. 97 day feeding period.
Total gain per hog 169.5 pounds. Average daily gain per hog 1.7 pounds.

<table>
<thead>
<tr>
<th>FEEDS USED</th>
<th>TOTAL CONSUMED</th>
<th>DAILY RATION (per hog)</th>
<th>FEED PER 100 LB GAIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shelled corn</td>
<td>2,943.3</td>
<td>5.545</td>
<td>32.53</td>
</tr>
<tr>
<td>Fish meal</td>
<td>273.9</td>
<td>.512</td>
<td>30.2</td>
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</table>

Price of corn per ton
Price of corn per bushel
Total cost per 100 lb gain

Price of fish meal per ton

$70
$60
$50
$40
$30
$20
$10
$0
OHIO SWINE FEEDING
CALCULATING COSTS PER 100 POUNDS GAIN

Average initial weight 70.9 pounds. Average of 3 trials using 15 hogs. 83 day feeding period.
Total gain per hog 82.2 pounds. Average daily gain per hog 0.99 pounds.

<table>
<thead>
<tr>
<th>FEEDS USED</th>
<th>TOTAL CONSUMED</th>
<th>DAILY RATION (per hog)</th>
<th>FEED PER 100 LB GAIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shelled corn</td>
<td>1.822</td>
<td>4.136</td>
<td>422.5</td>
</tr>
<tr>
<td>Ground soybeans</td>
<td>108.3</td>
<td>0.439</td>
<td>30.7</td>
</tr>
</tbody>
</table>

Price of corn per ton
Price of corn per bushel

Total cost per 100 lb gain

Price of soybeans per ton

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No. 6
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# NEBRASKA SWINE FEEDING

**Calculating Costs Per 100 Lbs. Gain**

Average initial weight 140.5 pounds. Average of 3 trials using 60 hogs. 83 day feeding period.
Total gain per hog 125.2 pounds. Average daily gain per hog 1.61 pounds

<table>
<thead>
<tr>
<th>FEEDS USED</th>
<th>TOTAL CONSUMED (per hog)</th>
<th>DAILY RATION (per hog)</th>
<th>FEED PER 100 LBS. GAIN (per hog)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shelled corn</td>
<td>640.0</td>
<td>7.7</td>
<td>437.7</td>
</tr>
<tr>
<td>Tankage</td>
<td>49.9</td>
<td>0.6</td>
<td>37.1</td>
</tr>
<tr>
<td>Alfalfa hay</td>
<td>10.8</td>
<td>0.13</td>
<td>6.6</td>
</tr>
</tbody>
</table>

**Price of corn per ton**
Price of corn per bushel:

- $2.00
- $1.75
- $1.50
- $1.25
- $1.00
- $0.75
- $0.50
- $0.25
- $10

**Cost of corn + tankage**
Total cost per 100 lbs. gain:

- $18
- $14
- $12
- $8

**Price of tankage per ton**
Price of alfalfa hay per ton:

- $30
- $60
- $50
- $40
- $30
- $20
- $10
**NEBRASKA SWINE FEEDING**

**CALCULATING COSTS PER 100 LBS. GAIN**

Average initial weight: 125.2 pounds. Average of 3 trials using 29 hogs. 103 day feeding period.

Total gain per hog: 145.7 pounds. Average daily gain per hog: 1.44 pounds.

<table>
<thead>
<tr>
<th>FEEDS USED</th>
<th>TOTAL CONSUMED (per hog)</th>
<th>DAILY RATION (per hog)</th>
<th>FEED PER 100 LB GAIN (per hog)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shelled corn</td>
<td>617.2</td>
<td>6.14</td>
<td>425</td>
</tr>
<tr>
<td>Alfalfa hay</td>
<td>39.6</td>
<td>0.35</td>
<td>91</td>
</tr>
</tbody>
</table>

- Price of corn per 100
- Price of corn per bushel
- Total cost per 100 lbs. gain

- Price of alfalfa hay per ton

Diagram:
### NEBRASKA SWINE FEEDING

**Calculating Costs Per 100 Lbs. Gain**

Average initial weight 80.4 pounds, Average of 3 trials using 41 hogs, 112 day feeding period. Total gain per hog 94.5 pounds, Average daily gain per hog 0.88 pounds.

<table>
<thead>
<tr>
<th>FEEDS USED</th>
<th>TOTAL CONSUMED (per hog)</th>
<th>DAILY RATION (per hog)</th>
<th>FEED PER 100 LB GAIN (per hog)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shelled corn</td>
<td>442.8</td>
<td>4.06</td>
<td>461.2</td>
</tr>
<tr>
<td>Shorts</td>
<td>60.3</td>
<td>0.55</td>
<td>60.5</td>
</tr>
<tr>
<td>Alfalfa hay</td>
<td>16.3</td>
<td>0.14</td>
<td>14.0</td>
</tr>
</tbody>
</table>

- **Price of corn per ton**: $2.00
- **Price of corn per bushel**: $7.00
- **Cost of corn + shorts**: $8
- **Total cost per 100 lbs. gain**: $50
- **Price of shorts per ton**: $50
- **Price of alfalfa hay per ton**: $9.00

No. 9
<table>
<thead>
<tr>
<th>FEEDS USED</th>
<th>TOTAL CONSUMED (per hog)</th>
<th>DAILY RATION (per hog)</th>
<th>FEED PER 100 LB GAIN (per hog)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alfalfa pasture</td>
<td>138 days</td>
<td>587.5 lbs.</td>
<td>4.25</td>
</tr>
<tr>
<td>Shelled corn</td>
<td>48.5 lbs.</td>
<td>0.35</td>
<td>28</td>
</tr>
<tr>
<td>Tankage</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Price of alfalfa pasture per day:
- $1.60
- $1.40
- $1.20
- $1.00
- $0.80
- $0.60
- $0.40
- $0.20

Cost of alfalfa pasture + corn:
- $35
- $30
- $25
- $20
- $15
- $10
- $5

Total cost per 100 lbs gain:
- $35

Price of corn per bushel:
- $5.00
- $4.00
- $3.00
- $2.00
- $1.00

Price of tankage per ton:
- $5.00
- $4.00
- $3.00
- $2.00
- $1.00
- $0.50
- $0.25

Average initial weight: 47 pounds.
Total gain per pig: 178 pounds.
Average of 7 trials using 50 pigs.
138 day feeding period.
Average daily gain per pig: 1.25 pounds.
### ILLINOIS FEEDING PIGS ON PASTURE
**Calculating Costs Per 100 Lbs. Gain**

Average initial weight 47 pounds. Average of 7 trials using 50 pigs. 138 day feeding period. Total gain per pig 164 pounds. Average daily gain per pig 1.17 pounds.

<table>
<thead>
<tr>
<th>FEEDS USED</th>
<th>TOTAL CONSUMED (per hog)</th>
<th>DAILY RATION (per hog)</th>
<th>FEED PER 100 LB. GAIN (per hog)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rape pasture</td>
<td>138 days</td>
<td>4.05</td>
<td>346</td>
</tr>
<tr>
<td>Shelled corn</td>
<td>5300 lbs.</td>
<td>0.33</td>
<td></td>
</tr>
<tr>
<td>Tankage</td>
<td>44.8 lbs.</td>
<td></td>
<td>29</td>
</tr>
</tbody>
</table>

**Price of rape pasture per day**

Price of corn per bushel

Cost of rape pasture + corn

Total cost per 100 lbs. gain

Price of tankage per ton

50

200

175

40

150

125

30

100

75

20

50

25
### INDIANA-OHIO SWINE FEEDING
#### CALCULATING COSTS PER 100 LB GAIN

Average initial weight 68.8 pounds. Average of 4 trials using 22 hogs. 82 day feeding period. Total gain per hog 113.8 pounds. Average daily gain per hog 1.4 pounds.

<table>
<thead>
<tr>
<th>FEEDS USED</th>
<th>TOTAL CONSUMED (per hog)</th>
<th>DAILY RATION (per hog)</th>
<th>FEED PER 100 LB GAIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shelled corn</td>
<td>346.86</td>
<td>4.23</td>
<td>299.0</td>
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<tr>
<td>Skimmilk</td>
<td>678.14</td>
<td>8.27</td>
<td>602.4</td>
</tr>
</tbody>
</table>

Price of corn per ton
Price of corn per bushel

Total cost per 100 lb gain

Price of skimmilk per lb