Comparison of Feed Consumption of Pigs in Two Lines

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Summary

Pigs in the control line ate more, grew faster, and were less efficient than those in the select line.

Introduction

Our objectives are to develop a well muscled line by index selection, to maintain a control line by random selection, and to compare the lines for performance and carcass traits.

Procedure

Select-line animals are chosen on the basis of an index that equally emphasizes maximum loin eye area and minimum backfat thickness estimated by the An/Scan adjusted to 220 pounds live weight. Selection in the control line is random.

Pigs are farrowed in May and June and produce litters a year later. A total of 185 pigs were fed in seven outside pens. Average daily gain, feed-to-gain ratio, average daily feed consumption, and average final weight were determined for pigs in each pen.

Results and Discussion

Faster growth by control-line pigs is reflected by both their larger daily gains (Table 40 and by adjusted ages to 220 pounds live weight. Adjusted age for control-line boars was 172.2 days compared with 179.7 days for select boars. The difference was even larger for gilts, 173.0 for control gilts and 183.9 days for the select. Eleven control-line boars' average adjusted backfat thickness was 0.92 inch; that of 13 select boars, 0.85 inch. The 43 control gilts averaged 1.00 inch; 40 select gilts averaged 0.91 inch in backfat thickness.
Table 40. A Comparison of Rates of Gain, Feed-to-gain Ratios, Daily Feed Consumptions, and Weights of Pigs in Two Experimental Lines (lb).

<table>
<thead>
<tr>
<th>Indicated factor</th>
<th>1</th>
<th>4</th>
<th>6</th>
<th>Pen 3</th>
<th>2</th>
<th>5</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg. daily gain, lb</td>
<td>1.62</td>
<td>1.61</td>
<td>1.41</td>
<td>1.41</td>
<td>1.74</td>
<td>1.71</td>
<td>1.74</td>
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<tr>
<td>Feed/gain</td>
<td>3.20</td>
<td>3.01</td>
<td>3.14</td>
<td>2.76</td>
<td>3.19</td>
<td>3.82</td>
<td>3.39</td>
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<tr>
<td>Daily feed consumption, lb</td>
<td>5.20</td>
<td>4.84</td>
<td>4.43</td>
<td>3.89</td>
<td>5.45</td>
<td>6.53</td>
<td>5.90</td>
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<tr>
<td>Wt. at end of period, lb</td>
<td>233.4</td>
<td>241.2</td>
<td>201.6</td>
<td>200.0</td>
<td>255.7</td>
<td>190.1</td>
<td>239.7</td>
</tr>
<tr>
<td>No. of pigs</td>
<td>22</td>
<td>31</td>
<td>27</td>
<td>27</td>
<td>19</td>
<td>30</td>
<td>29</td>
</tr>
</tbody>
</table>

Pen description:
1. Select boars and barrows - Aug. 8 - Dec. 2
2. Control boars and barrows - Aug. 8 - Dec. 2
3. "Peanut" pen - smallest barrows and gilts from both lines - Aug. 8 - Dec. 9
4. Larger select gilts - Aug. 8 - Dec. 2
5. Larger control gilts - Aug. 8 - Nov. 4
6. Smaller select gilts and barrows - Aug. 8 - Dec. 2
7. Smaller control gilts and barrows - Aug. 8 - Dec. 2