Does it pay to overbuild transition cow facilities?

The old adage says, “The most expensive thing on a dairy is an empty stall.”

Dr. Ken Nordlund counters that statement. “The most expensive thing on a dairy is a prefresh stall that is always full.”

His research shows that providing sufficient bunk space and comfortable stalls are two of the key factors for transition cow success. But what is the price tag on that success, and is it worth the cost? The example illustrates the payoff of investing in transition cow comfort on a 1,000-cow dairy.

Assumptions: 1,000-cow dairy = 1050 calvings per year, or 20 calvings per week.

<table>
<thead>
<tr>
<th>Stall size</th>
<th>Traditional transition cow barn</th>
<th>Transition-cow-friendly barn</th>
</tr>
</thead>
<tbody>
<tr>
<td>45 inches X 66 inches</td>
<td>Cost per stall: $2,500</td>
<td>50 inches X 70 inches</td>
</tr>
<tr>
<td></td>
<td>Number of stalls: 120</td>
<td>Cost to build barn: $300,000</td>
</tr>
<tr>
<td>Prefresh</td>
<td>60</td>
<td>Added cost: $153,600</td>
</tr>
<tr>
<td>Post-fresh</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>Cost to build barn: $300,000</td>
<td></td>
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</tr>
</tbody>
</table>

For 1,000-lb TCI improvement:

**INCOME OVER FEED COST**

$117.00 per cow per year

**ADDED MONTHLY COST**

$34.78 per cow per year

**INCREASED INCOME DUE TO TRANSITION-COW-FRIENDLY HOUSING**

$82.22 per cow per year

Amortize added cost of $153,600 over 5 years at 5% interest:

Added monthly payment: $2,898.62

Total added cost per year: $34,783.44

For a 1,000-cow dairy: $34.78 per cow per year

**PROJECTED PROFIT FROM TRANSITION-COW-FRIENDLY BARN:**

$18/cwt *

50 percent I0FC **

1,300 pounds ***

= $117.00 INCREASED PROFIT per cow, per year

*Milk price of $18 per hundredweight (cwt).

**Income over feed cost (I0FC) at 50 percent of gross milk price.

***1,300 pounds of increased milk per cow per lactation is the conservative observation on dairies that improve stall comfort, feed space availability and social stability for transition cows. This figure is based on TCI data.