Financial Planning

Below is a whole farm budget for Brenda and Matt for their current farming situation. However, they would like to expand their operation by adding 200 acres that Brenda’s grandmother owns.

**Alternative 1.** They could rent the land for $180 per acre. Added sales would be $500 per acre, added operating costs would be $200 per acre plus the $180 cash rent. Complete the budget for this alternative. Calculate their net farm income, net cash flow, and change in net worth if they did this. Their current interest and principal payments would not change.

**Alternative 2.** They could buy the 200 acres instead. Granny will sell it to them on contract for $600,000. They would have to pay her 5% interest on the balance owed plus $24,000 principal each year for 25 years. As before, they would have $400 additional sales per acre and $150 added operating costs per acre, plus $5,000 additional property taxes total. Budget the results from this option.

How would each alternative affect their profitability? Liquidity? Solvency?

<table>
<thead>
<tr>
<th>Profitability (Net Income)</th>
<th>Current</th>
<th>Rent 200 acres</th>
<th>Buy 200 acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>$170,000</td>
<td>$270,000</td>
<td>$270,000</td>
</tr>
<tr>
<td>Operating costs + prop. tax</td>
<td>$100,000</td>
<td>$140,000</td>
<td>$145,000</td>
</tr>
<tr>
<td>Cash rent (200 a. @ $180)</td>
<td>0</td>
<td>______</td>
<td>0</td>
</tr>
<tr>
<td>Interest (machinery + land loans)</td>
<td>13,000</td>
<td>13,000</td>
<td>______</td>
</tr>
<tr>
<td>Depreciation</td>
<td>12,000</td>
<td>12,000</td>
<td>12,000</td>
</tr>
<tr>
<td>Total expenses</td>
<td>$125,000</td>
<td>______</td>
<td>______</td>
</tr>
<tr>
<td><strong>Net Farm Income</strong></td>
<td>$45,000</td>
<td>______</td>
<td>______</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Liquidity (Cash Flow)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>$170,000</td>
<td>$270,000</td>
<td>$270,000</td>
</tr>
<tr>
<td>Operating costs</td>
<td>$100,000</td>
<td>$140,000</td>
<td>$145,000</td>
</tr>
<tr>
<td>Cash rent</td>
<td>0</td>
<td>______</td>
<td>______</td>
</tr>
<tr>
<td>Interest (machinery + land)</td>
<td>13,000</td>
<td>13,000</td>
<td>______</td>
</tr>
<tr>
<td>Principal payments (mach. + land)</td>
<td>22,000</td>
<td>22,000</td>
<td>______</td>
</tr>
<tr>
<td>Family living expenses</td>
<td>35,000</td>
<td>35,000</td>
<td>35,000</td>
</tr>
<tr>
<td>Total cash outflows</td>
<td>$170,000</td>
<td>______</td>
<td>______</td>
</tr>
<tr>
<td><strong>Net Cash Flow</strong></td>
<td>$0</td>
<td>______</td>
<td>______</td>
</tr>
</tbody>
</table>

| Solvency (debt to asset ratio) | $200,000 | ______ / ______ |
|______________________________|___________|___________|
| Total liabilities / total assets = | $500,000 = 40% |
| =________% =________% |

Change in net worth
(NFI minus family living) + $10,000
+ 3% land value increase