Introduction

Tomato is one of the most important and most cultivated vegetables worldwide. With the many uses and nutritional value of tomato, it becomes an indispensable ingredient in man's diet. In the Philippines, Ilocos Norte is one of the major producers of tomato (4.57%), next to Bukidnon and Pangasinan (LAS, 2010).

Most of the farmers plant tomatoes at the same time during the dry season from November to January, hence the largest volume of fruits flock at the local markets from February to March making the price very low. Tomato storage is necessary during this time to regulate the supply in the market and to wait for a better price.

Many have tried storing tomatoes but only few were successful. Recent findings done at the Mariano Marcos State University revealed that the use of rice straw as a storage medium for tomato is very effective to prolong its shelf life. Rice straw is available and abundant in the locality.

The MMSU Tomato Storage Technology

- Use Ilocos Red tomato variety
  - Stop irrigating the tomato plants 10 to 14 days before harvesting to prevent them from rotting easily.

- Harvest only green mature fruits preferably in the morning.

- Select fruits free from insect damage and bruises; pack 8 to 10 kg of tomatoes in paper box or plastic sack incorporated with newly harvested and dried rice straw, 2-3cm thick, placed in between layers of tomatoes.

- Store packed tomatoes in an open area, elevated using bamboo rack or paoas to provide good ventilation.

- Maximum storage length is 2 months.

It is effective

Paper box alone: 38.24% rotten fruits
Paper box with rice straw: 6.83% rotten fruits
Bamboo basket alone: 34.71% rotten fruits
Bamboo basket with rice straw: 16.23% rotten fruits
Plastic sack alone: 14.78% rotten fruits
Plastic sack with rice straw: 5.10% rotten fruits

It is profitable

Cost and return analysis in storing one tomato with rice straw

<table>
<thead>
<tr>
<th>ITEM</th>
<th>15</th>
<th>30</th>
<th>45</th>
<th>60</th>
<th>75</th>
<th>90</th>
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<td>5,000</td>
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<tr>
<td>Paper box</td>
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<tr>
<td>Treatment cost of handling</td>
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<td>200</td>
<td>200</td>
<td>200</td>
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<tr>
<td>Labor</td>
<td>400</td>
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<tr>
<td>Net income</td>
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<td>5,500</td>
<td>5,300</td>
<td>5,100</td>
<td>4,900</td>
<td>4,700</td>
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<td>Profitability (%)</td>
<td>57.0%</td>
<td>55.0%</td>
<td>53.0%</td>
<td>51.0%</td>
<td>49.0%</td>
<td>47.0%</td>
</tr>
<tr>
<td>Profitable area</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
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<tr>
<td>Profitable area (%)</td>
<td>9.70%</td>
<td>9.60%</td>
<td>9.50%</td>
<td>9.40%</td>
<td>9.30%</td>
<td>9.20%</td>
</tr>
</tbody>
</table>

It is profitable to store tomatoes until 67 days.
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Rice Straw:
Storage Medium in the MMSU
Tomato Storage Technology

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