Introduction

• Cowpea has a valuable contribution towards human food and livestock fodder.
• There has been a lot of emphasis on the grain leaving out the high potential of the leaf not fully exploited.
• Cow pea leaves are highly nutritious.
• Poor postharvest practices and lack of knowledge on proper storage methods would lead to the perishability of the crop.

Study Objective

• To establish the current harvesting, post-harvest handling and storage knowledge and practices of cowpea leaves handlers in Kitui and Taita taveta.

Materials and Methods

• Cross sectional survey was conducted in Taita County, Kenya.
• Sampling of 405 households (Yamane 1967:886).
• Data collection tools: Semi-structured questionnaire, FGD guides and KII questionnaires.
• Minimum sample size calculated as per Yamane 1967:886 formulae:
  \[ n = \frac{N}{1 + N(e)^2} = 400 \]
  \[ N = (276.581) \] was the total number of households in the two counties as per (KNBS, 2013) and \( e \) is the maximum variability (0.05) permitted.

Results

• Seventy five percent of the farmers producing cowpea leaves do not sell their surplus.
• Transport to the market either by road using motor bikes, truck and donkeys or using their own backs.
• Packaging is done primarily in sacks (54.6%) before transportation to the market or prior to storage.
• Majority being from Taita taveta (84.9%) while the rest being from Kitui (23.5%).
• Field heat management was only done among 55.3% households. Taita Taveta (71.7) and Kitui County (38.5%).
• 95.8% of the farmers in both counties incur losses to 10% with the majority being from Taita taveta (97.1) remaining percentage (3.7%) of farmers incur losses up to 30% during transportation to the market with 4.5% losses being from Kitui.
• Losses are majorly attributed by poor storages facilities, at least 65.4% of the farmers from Taita taveta lack these facilities and 45.5% from Kitui.

Methods of field heat management

<table>
<thead>
<tr>
<th>Method</th>
<th>Kitui</th>
<th>Taita Taveta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room cooling</td>
<td>15%</td>
<td>30%</td>
</tr>
<tr>
<td>Leave outside shade</td>
<td>25%</td>
<td>35%</td>
</tr>
<tr>
<td>Sprinkle water</td>
<td>20%</td>
<td>15%</td>
</tr>
<tr>
<td>Leave overnight</td>
<td>40%</td>
<td>30%</td>
</tr>
</tbody>
</table>

Discussion

• Losses occur at different stages of vegetable value chain and according agricultural production, postharvest handling and storage, processing and packaging, distribution, and consumption.
• The traders value chain mainly endures the distribution and post harvest handling and storage losses.

Conclusions

• Farmers postharvest handling and storage practices of cowpea leaves are poor leading to high losses.
• Improvement of good postharvest practices to reduce losses is recommended.

Recommendation

• New and several other postharvest handling and storage technologies should be developed and disseminated to the farmers in order to ensure quality and safety of cowpea leaves.

References