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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

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
 - $$n = \frac{N}{1+N(e)^2} = 400$$
 - Where 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.

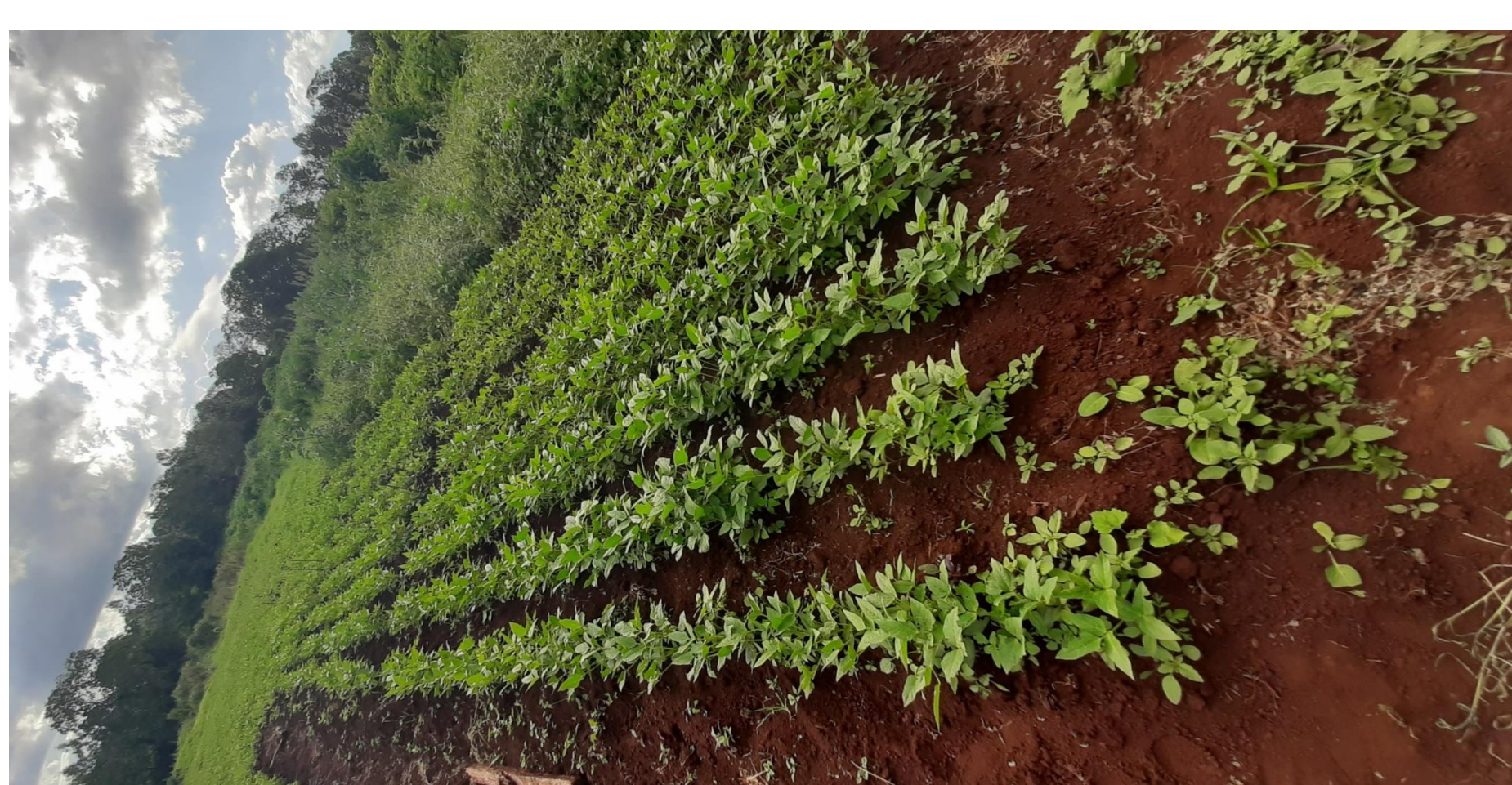
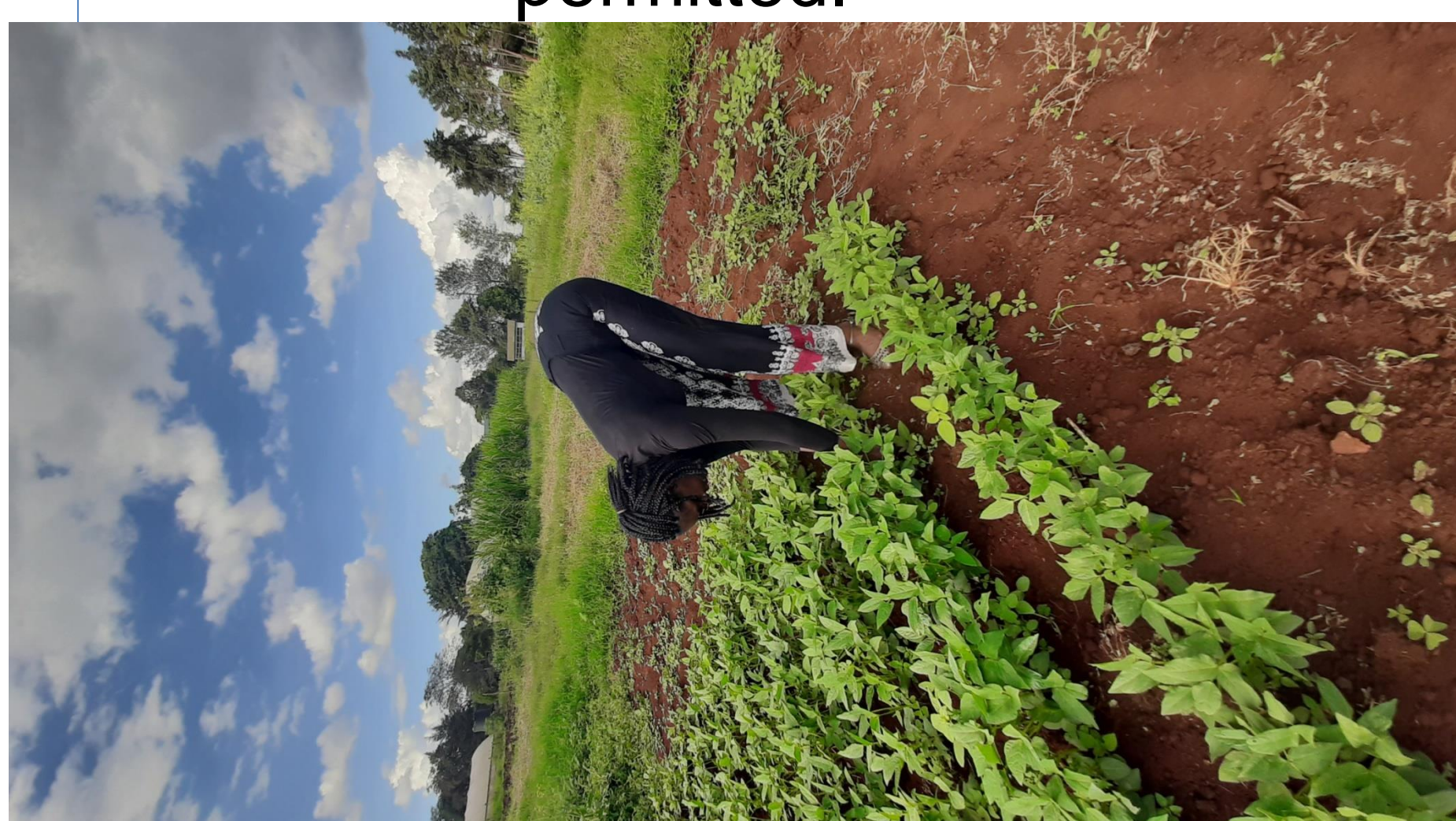


Fig 2. Cowpea leafy vegetables in a farm

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 donkey 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

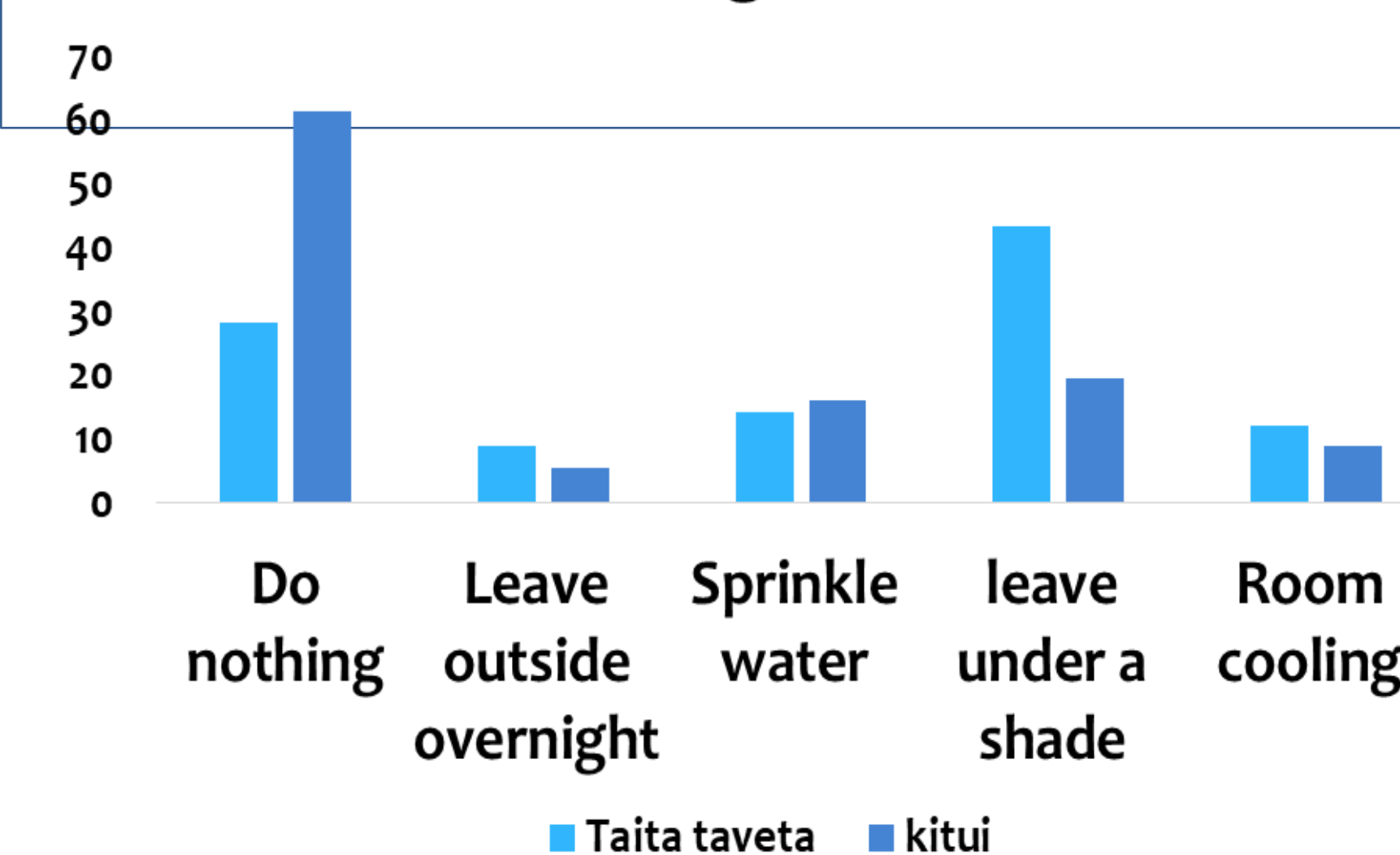


Fig 2 Graph showing field heat management methods in the regions . Causes of postharvest losses

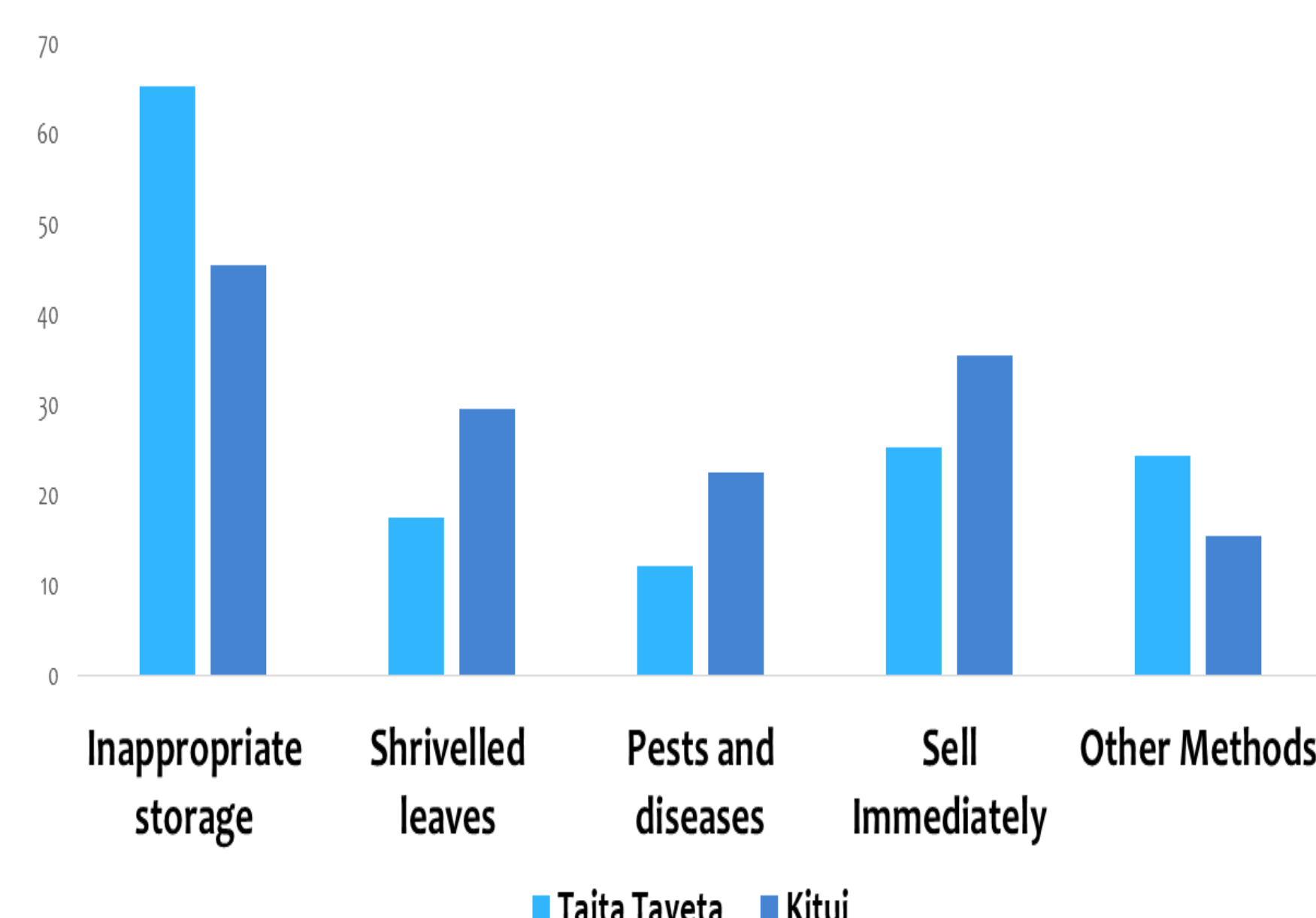


Fig 3. Graph showing causes of postharvest losses .



Fig 4 Cowpea leaves primarily packed in a sack .

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.

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