How to preserve African leafy vegetables for use in dry periods

For 4.6 tones, a farmer gets (4.6 x 1,000 x 40) KES 184,000 for fresh vegetables.

**Dried vegetable sale**
To make one kilogram of dried vegetables requires 7 kilograms of fresh vegetables.

Hence: 4.6 tons x 1,000 = 4,600 / 7 = 655kgs
For 4.6 tones harvested, the farmer ends up with 655 kilos of dried vegetables.

One kilogram of dried vegetables sells at KES 600.00.

Hence, a farmer with dried vegetables will be able to earn 655kg x 600 = KES 393,000.00.

By selling the dry vegetables, the farmer will be able to earn (393,000 - 184,000) = KES 209,000 more.

This amount will offset the labour, and equipment costs.
Introduction

African leafy vegetables (ALVs) are an important food security crops and are more nutritious than exotic vegetables such as kales and cabbages. Examples of ALVs are spider plant, black nightshade, Amaranthus and cow peas.

The ALVs contain minerals such as iron, calcium and vitamin A required for human health. Yields increase from 0.8–4.6 tons per hectare is realized when FYM combined with DAP and CAN is used.

During the wet rainy season, there is over production and short supply during the dry season.

Simple preservation methods such as blanching and solar drying can be used to provide all round availability.

Advantages of vegetable preservation
- Ensures continuous supply of vegetable to the house hold during the dry season.
- The vegetables take a shorter time to cook and taste like fresh ones.
- Increases shelf life and may be transported easily over long distances.

Requirements
- Freshly harvested leafy vegetables
- Clean buckets or basins
- Four to five big pots or sufurias
- Sieves
- Big spoons
- Clean water
- Salt
- Solar drier
- Self seal polythene bags
- Storage container.

Procedure

Cleaning:
- Harvest the vegetables and cut off the stocks
- Remove any dried leaves and any other foreign material
- Wash and rinse the vegetables using plenty of clean water.

Boiling
- Pour a known water amount in a sufuria and place over the fire
- For each litre of water, add one teaspoon full of salt and mix thoroughly
- Heat the water-salt mixture to boiling
- Immerse the vegetables into the boiling water

Rinsing and drying
Rinse vegetables with cold clean water
- Spread in thin layers on solar drier trays
- Leave the vegetables to dry for 2–5 days depending on the weather conditions
- Remove the dried vegetables from the drier and store them in a cool dry place for hours before they are packaged.

Packaging
- Pack the vegetables into units of 100g in self-sealing polythene bags
- Store the vegetables in airtight containers and keep in cool dry place for sale or use during the dry season.

Vegetables stored in this state can store for at least 6 months.

Economic returns:

Fresh vegetable sale:
From a one-acre yield of 4.6 tons of fresh leaf yield.

One kilogram of fresh vegetables sells for KES40.00