

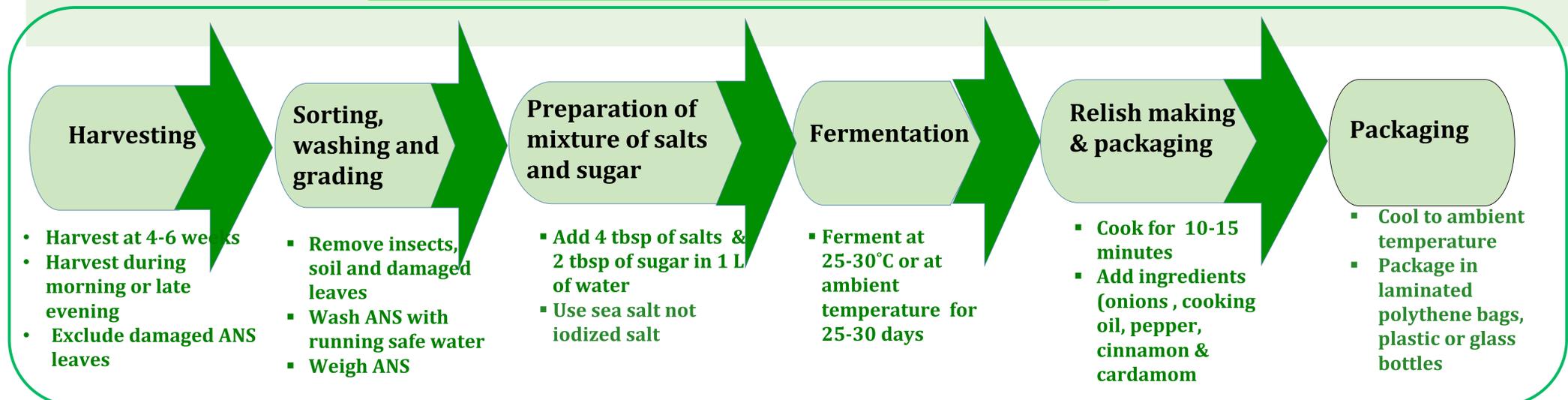


Introduction

- African Nightshade (ANS) is one among many varieties of indigenous African vegetables that are rich in nutrients such as vitamins, minerals and protein.
- ANS is used as a natural remedy in many Tanzanian communities
- When ANS is matured it is easily damaged, so proper post-harvest handling should be taken
- Fermentation of the ANS improves shelf life and nutrients bioavailability
- Fermentation retains vitamins and minerals, improves taste, appearance and prolongs the product



Stages in fermentation of African nightshade (Relish Making)



<p>Harvesting</p> <ul style="list-style-type: none"> • Harvest at 4-6 weeks • Harvest during morning or late evening • Exclude damaged ANS leaves 	<p>Sorting, washing and grading</p> <ul style="list-style-type: none"> ▪ Remove insects, soil and damaged leaves ▪ Wash ANS with running safe water ▪ Weigh ANS 	<p>Preparation of mixture of salts and sugar</p> <ul style="list-style-type: none"> ▪ Add 4 tbsp of salts & 2 tbsp of sugar in 1 L of water ▪ Use sea salt not iodized salt 	<p>Fermentation</p> <ul style="list-style-type: none"> ▪ Ferment at 25-30°C or at ambient temperature for 25-30 days 	<p>Relish making & packaging</p> <ul style="list-style-type: none"> ▪ Cook for 10-15 minutes ▪ Add ingredients (onions, cooking oil, pepper, cinnamon & cardamom) 	<p>Packaging</p> <ul style="list-style-type: none"> ▪ Cool to ambient temperature ▪ Package in laminated polythene bags, plastic or glass bottles
<p>Harvesting of ANS © https://africa-rising.net/healthy-veggie-revolution/</p>	<p>Washing of ANS © Frank Sangija</p>	<p>Mixture of salt 4% and sugar 2% © Frank Sangija</p>	<p>Fermentation of ANS continues © Frank Sangija</p>	<p>ANS relish © Frank Sangija</p>	<p>Packaged ANS relish © Frank Sangija</p>
<p>Collection of ANS in plastic crates © Marynurce Kazosi</p>	<p>Sorting of ANS © Frank Sangija</p>	<p>Weighing of mixture of ANS, salts and sugar © Frank Sangija</p>	<p>Formation of foams during fermentation © Frank Sangija</p>	<p>Packaged fermented ANS leaves (relish) © Frank Sangija</p>	
<p>Exclude damaged ANS leaves © Nono-Womdimio et al. (2009)</p>	<p>Weighing of sorted and washed ANS © Frank Sangija</p>	<p>Fermentation in stainless bucket covered with nylon © Frank Sangija</p>	<p>Fermented ANS © Frank Sangija</p>	<p>Packaged relish of ANS © Frank Sangija</p>	

ACHARI YA MNAVU

Kwa alya bora

Virunga
• Mnavu
• Pipiti
• Kitungu maji
• Kifuta
• Chumvi
• Kitungu sakumu
• Tanganyika

Virubabiki
• Mafu-Cakum, 20x8 20x2
• Mafu-A, B1, B2 & C

Imzalishwa: 130g

Hihi ni wema yanay uliwa 130g

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