Moringa Leaf Farming Systems: Conditions for Profitability and Sustainability

The south-east Togo example, by the NGO APPEF
APPEF-TOGO
Association for the Promotion of Togo’s Forest Tree Species Growers

• Working within the Health and Environment sectors
• Farming and developing Moringa since 1998
• Improving their capacity to process Moringa leaves into powder
Farming Systems

- Monocropping on small plots-system best adapted to this context
- Seedlings planted along the perimeter of fields

- 60 growers
- 2 ha farmed with 1.2 ha in production
- Average plot surface: 300 m per plantation
Technical Itinerary

- Density of 10,000 plants /ha
- Planting of seeds or cuttings (diameter > 4 cm)
- First harvest at 2 months, then 7 harvests per year
- Plants cut back to within 60cm of the ground
- 3 to 4 weedings a year

Fresh leaf yields
- Rainy season : 1120 kg/ha per harvest
- Dry season : 690 kg/ha per harvest
- Average yield : 6 tons/ha/year
Processing

- Drying in the shade the day of harvest (2 days)
- Removal of leafstalks
- Second drying (3 to 4 days)
- Mill (or mortar) and sifting
- Packaging

- 18 to 20 hours of work for 100kg of fresh leaves
- 13 kg of dry powder for 100 kg of fresh leaves
## Costs

<table>
<thead>
<tr>
<th></th>
<th>in FCFA per 100 kg of fresh leaves</th>
<th>in FCFA per kg of powder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance</td>
<td>2400</td>
<td>429</td>
</tr>
<tr>
<td>Harvest</td>
<td>1900</td>
<td></td>
</tr>
<tr>
<td>Transportation</td>
<td>1300</td>
<td>100</td>
</tr>
<tr>
<td>Processing</td>
<td>3900</td>
<td>300</td>
</tr>
<tr>
<td>Packaging and sale</td>
<td>variable</td>
<td>variable</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1000 to 1200</strong></td>
<td></td>
</tr>
</tbody>
</table>
Conclusion & Discussion

- Costs and yields evolve with new equipment
- Reduce the distance to fields by multiplying drying stations
- Increase the volumes produced and distributed: importance of communication
- Promote the use of other parts of the plant