Getting started with Nutritious Sweetpotato For Niassa

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4th SPHI Annual Technical Meeting Kumasi, Ghana

7-10 October 2013
Nutritious Orange-fleshed Sweetpotato for Niassa

Irish Aid
Rialtas na hÉireann
Government of Ireland

IIAM
Instituto de Investigação Agrária de Moçambique

Diocese Anglican, UCA-Concern Universal

Sectors Focus: Agriculture, Health, and Education

Intervention Zones: 7 districts in Niassa Province

Duration: 1 November 2012 – 31 March 2016 (3.5 years)
Presentation Outline

1. Introduction
2. Objectives
3. Achievements
4. On-Farm Trials Evaluations
5. Challenges & opportunities
6. The way forward
1. Introduction

1. Strong political support at provincial-level to combat the province’s high rates of malnutrition => Donor interest

2. Sweetpotato is already grown in the province => Well-established benefits of orange-fleshed sweetpotato (OFSP) to combating Vitamin A deficiency (VAD);

3. Ideal agro-ecological conditions for OFSP production

4. Availability of 9 OFSP varieties already tested against multiple criteria by CIP in partnership with IIAM in Mozambique;

5. Strong interest in integrating OFSP nutritional content and field trials into existing initiatives (NGOs, Associations,...)

6. Presence of some large-scale producers and the Lichinga urban market.
Contribute to reducing Food Insecurity & Vitamin A Deficiency Through Effective Delivery of a Biofortified Crop

1. Increase Vitamin A & energy intake in 20,000 vulnerable HHs by January 2016
2. At least 20% of HHs growing OFSP earn 50 USD or more per year from OFSP sales
3. Increase average yields by 50%
4. Build capacity of partners through project good management in collaboration with SETSAN
3. Achievements

Nine (9) new varieties

1. Bela
2. Delvia
3. Esther
4. Erica
5. Gloria
6. Ininda
7. Irene
8. Jane
9. Sumaia
10. Local

38 OFT planted from 04/01/2013 to 12/01/2013 (one week)
1. Launching workshop and monthly coordination meetings;
2. Evaluation of on-farm trials (OFTs) in 4 Districts;
3. Presentation of Results at 4 Districts;
4. Project setup in 3 Districts;
5. Visit Exchange to Malawi => Business Collaboration between DVMs;
6. Training on: OFT installation, vine multiplication, SP production, processing, net tunnels and rapid multiplication;
7. Vine transfer & RM in screen house;
8. Baseline surveys Data collections.

3. Achievements (cont’d)
4. On-Farm Trials Evaluations

Criteria for qualitative evaluation of Leaf and Root taste

<table>
<thead>
<tr>
<th>Cooked Leaf Taste</th>
<th>Cooked Root Taste</th>
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</thead>
<tbody>
<tr>
<td>1. Appearance</td>
<td>1. Appearance</td>
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<tr>
<td>2. Texture</td>
<td>2. Texture</td>
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<tr>
<td>3. Taste</td>
<td>3. Aroma</td>
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<tr>
<td>4. Appreciation</td>
<td>5. Appreciation</td>
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<tr>
<td>General of leaf</td>
<td>General of Root</td>
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</table>

Appreciation General of Leaf & Root

Leaf taste period: 24/04 to 14/05/2013 (20 days)

Harvest period: 27/05/2013 to 08/07/2013 (41 days)

Total participants: 1,234 – Men = 615 & Women = 619
General Appreciation level on leaf & root taste test of ten (10) varieties across 33 sites by gender in %
Appreciation level of ten (10) varieties across 33 sites by gender in %
Root taste appreciation level of ten (10) varieties in each District by gender in %
Root appreciation level of nine (9) varieties for use in Golden Bread, Juice and Biscuit by gender in %

- High appreciation by Men
- Average appreciation by Men
- Low appreciation by Men
- High appreciation by Women
- Average appreciation by Women
- Low appreciation by Women

Chart showing the appreciation levels for each variety by gender.
Means of Yields on Roots & Vines for ten (10) varieties in Four Districts (t/ha)

- **Yield of Roots (t/ha)**
- **Yield of Vines (t/ha)**

**Chimbunila**
- Delvia: 13
- Sumai: 8
- Bela: 7
- Local: 6
- Gloria: 5
- Erica: 3
- Jane: 4
- Esther: 3
- Ininda: 2
- Irene: 2

n = 11

**Lago**
- Delvia: 17
- Sumai: 10
- Local: 9
- Jane: 8
- Erica: 7
- Bela: 7
- Gloria: 7
- Ininda: 7
- Irene: 6

n = 5

**Muembe**
- Delvia: 22
- Sumai: 13
- Local: 11
- Jane: 9
- Erica: 7
- Bela: 6
- Esther: 4
- Eric: 4
- Jane: 4
- Delvia: 6

n = 7

**Sanga**
- Delvia: 16
- Sumai: 9
- Local: 8
- Jane: 8
- Gloria: 7
- Eric: 5
- Bela: 4
- Ininda: 5
- Irene: 6
- Sumai: 5

n = 10
Means of Yields on Roots & Vines per site of 33 sites in Four Districts (t/ha)

<table>
<thead>
<tr>
<th>District</th>
<th>Chimbunila</th>
<th>Lago</th>
<th>Muembe</th>
<th>Sanga</th>
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5. Challenges

- Molds
- Goats & others
- Robber (isolated)
- Erosion
- Weed control
- Weevils
- Soil fertility & Production system
- Field reality
The graph shows the yield in t/ha for different varieties of sweet potatoes in two locations: Miala - Sanga and Sede - Chimbunila.

- **Bela**: Miala - Sanga: 14 t/ha, Sede - Chimbunila: 5.1 t/ha
- **Delvia**: Miala - Sanga: 32 t/ha, Sede - Chimbunila: 6.2 t/ha
- **Ininda**: Miala - Sanga: 9 t/ha, Sede - Chimbunila: 0.5 t/ha
- **Jane**: Miala - Sanga: 22 t/ha, Sede - Chimbunila: 4.1 t/ha
- **Local**: Miala - Sanga: 26 t/ha, Sede - Chimbunila: 1.5 t/ha
5. Opportunities
The way forward

1. Dissemination campaign for 4,400 HHs from 16\textsuperscript{th} October 2013
2. Integration into literacy program
3. Training on On-Farm Trials, Vine multiplications, Compost production at district levels
4. On-Farm trials on 30 sites in South Province from December 2013
5. Vines multiplication in South Province from January 2013
6. Multi location Trials for 3 groups at IIAM
7. Early planting from April 2014 for lowland multiplication
Medaase
Thank you for your attention
Merci beaucoup

Obrigado
Asante
Misaotra betsaka