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INTRODUCTION

- Miracle Berry (*S. dulfcicum*) is known as Agbayun (Yor, Nig.)

- *Synsepalum dulfcicum* generally referred to as Miracle Fruit, Miracle Berry

- *Synsepalum dulfcicum* fruit is small bright red in colour; it is an ellipsoid berry approximately 2 to 3 cm long.
- Originates from West Africa

- Magic berry is grown in West African tropics.
- Grown as intercrop with other tree crops
- When consumed, makes sour foods sweet
- Can be used to enhance the flavour of food.
Figure 1: A fruit bearing Miracle Berry Plant
PRODUCTION

- Grows well in sandy loam soil (pH 4.5 to 5.8).
- Cannot tolerate frost but loves partial shade with high humidity.
- Small tree (15ft), tolerate drought and full sunshine and slopes
- Propagation by seed which should not be sun-dried.
- Germination 14–21 days and plant could be spaced 4 x 4m to give 625 plants/ha.
- No established production figures in literature
Table 1: Miracle Berry Production in Ghana, Puerto Rico, Taiwan and South Florida

<table>
<thead>
<tr>
<th>S/N</th>
<th>Country</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>Total</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ghana</td>
<td>1.2</td>
<td>2.0</td>
<td>2.2</td>
<td>5.4</td>
<td>1.8</td>
</tr>
<tr>
<td>2</td>
<td>Puerto Rico</td>
<td>5.5</td>
<td>7.1</td>
<td>7.8</td>
<td>20.7</td>
<td>6.9</td>
</tr>
<tr>
<td>3</td>
<td>Taiwan</td>
<td>4.3</td>
<td>5.2</td>
<td>6.5</td>
<td>16.0</td>
<td>5.3</td>
</tr>
<tr>
<td>4</td>
<td>South Florida</td>
<td>6.9</td>
<td>8.2</td>
<td>10.8</td>
<td>25.9</td>
<td>8.6</td>
</tr>
<tr>
<td>5</td>
<td>Nigeria</td>
<td>1.8</td>
<td>4.2</td>
<td>5.0</td>
<td>11.0</td>
<td>3.7</td>
</tr>
</tbody>
</table>
Cultivation

- *Synsepalum dulcificum* is propagated by seeds.
- Seeds should not be dried out before planting.
- It grows best in soils with a pH as low as 4.5 to 5.8
- Grows in tropical environment and in partial shade with high humidity.
Consumption

- Magic Berries are eaten fresh.
- In its raw form, Africans sometimes use the fruits to improve the taste of stale food.
- Fruits are being investigated as a possible source for a natural food sweetener.
TRADE

- No distinct trade marketing channels
- Most fruits produced are eaten fresh in West Africa
- Sold in small quantities in local markets
- Sold for as high as USD50,000/ton
- No records of export from Nigeria and other West African countries.
Table 2: Miracle Berry Trade in Ghana, Puerto Rico, Taiwan and South Florida

<table>
<thead>
<tr>
<th>S/N</th>
<th>Country</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>Total</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ghana</td>
<td>50,200</td>
<td>68,000</td>
<td>80,000</td>
<td>198,200</td>
<td>66,066.67</td>
</tr>
<tr>
<td>2</td>
<td>Puerto Rico</td>
<td>650,000</td>
<td>767,000</td>
<td>900,000</td>
<td>2,317,000</td>
<td>772,333.33</td>
</tr>
<tr>
<td>3</td>
<td>Taiwan</td>
<td>250,000</td>
<td>401,882</td>
<td>558,000</td>
<td>1,210,382</td>
<td>403,460.67</td>
</tr>
<tr>
<td>4</td>
<td>South Florida</td>
<td>1,200,400</td>
<td>1,600,200</td>
<td>2,000,000</td>
<td>4,800,600</td>
<td>1,600,200</td>
</tr>
<tr>
<td>5</td>
<td>Nigeria</td>
<td>60,800</td>
<td>88,400</td>
<td>98,800</td>
<td>248,000</td>
<td>82,666.67</td>
</tr>
</tbody>
</table>
CONCLUSION

- Miracle Berry is well known but less studied.
- Available population are facing danger of genetic erosion and threat of extinction.
- I recommend the immediate intervention of interested agencies to rescue the crop.
FUTURE OUTLOOK

- Need for reduction in crop growth cycle through grafting or budding.

- Development of agrotechnics: flower induction, weed control, postharvest and storage systems etc.

- Use of biotech to develop mutants
References


THANK YOU FOR LISTENING.
Any Question?