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ADULT LITERACY STRATEGIES FOR WOMEN on COCOYAM PRODUCTION, USE & BENEFITS IN IGBOLAND

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PROJECT:
2-DAY WORKSHOP/INTENSIVE TRAINING IN RAW MATERIALS GROWTH, PRODUCTION & DEVELOPMENT FOR SOUTH EASTERN RURAL WOMEN

THEME:
EMPOWERING WOMEN TO STRENGTHEN & DEVELOP GROWTH OF RAW MATERIALS TO ERADICATE POVERTY

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COCOYAM PRODUCTION, USE & BENEFITS: ADULT LITERACY STRATEGIES

DATE: JANUARY 29-30, 2013
INTRODUCTION

- TRAINER & PARTICIPANTS MINGLE!

- ABOUT THE TRAINER

Williams Emeka Obiozor, Ed.D, is a specialist in Adult and Special Education projects. An alumnus of the University of Pittsburgh, Pittsburgh–Pennsylvania; Wilmington University, New Castle–Delaware, USA, and the University of Nigeria; Dr. Obiozor’s research interests include literacy, project management education, leadership and innovation in organizations, ICT and teacher preparation in Africa. He is also a novelist & motivational speaker on community development affairs. Consultant to OneStreet Consulting Limited, NATCOM–UNESCO, AANFE–UNICEF, the International Law Institute – Nigeria, African Development Law Centre & Producer/Host, ONESTREET RADIO TALKSHOW on 94.1 UNIZIK FM every Saturday @ 11am.

Dr. Obiozor likes to play tennis, conduct community activities and public speaking engagements, cook rice & stew, design handmade cards, meet new people & travel to new places.

- What about YOU?
THINK
BEFORE YOU SPEAK

T - Is it True?
H - Is it Helpful?
I - Is it Inspiring?
N - Is it Necessary?
K - Is it Kind?

If it is none of these things, is it really worth saying????? Think about it........
INTRO ACTIVITY

“What are the challenges in empowering women to eradicate poverty?”

React
Discuss & Share your ideas & opinions on the statement...

What is your impression of today’s food products especially on cocoyam?
Cocoyam is important in the diets of many households in Nigeria

Contains digestible starch, protein and other valuable nutrients.

The plant is inedible when raw and

Considered toxic due to the presence of calcium oxalate crystals:

The toxin is minimized by cooking...

Good for human nutrition, animal feed & cash income for both farmers and traders
GOOD THINGS ABOUT COCOYAM

- The leaves are nutritious spinach-like vegetable, which give a lot of minerals, vitamins and Thiamine.
- Cocoyam ranks 3rd in importance after cassava and yam among the root and tuber crops cultivated and consumed in Nigeria.
- Nutritionally cocoyam is superior to cassava and yam and taro starch is also more readily digested.
ABOUT COCOYAM

- Some people eat the leaves.
- Dietary fiber
- Energy
- Sugar
- Fat
- Carbohydrates
- Vitamins
- Calcium
- Iron
- Magnesium
- Zinc
- Potassium
- Phosphorus

Source: USDA Nutrient Database
HOW WE CAN ENJOY COCOYAM MEAL

- Roasted
- Peeled, Boiled & Cooked
- Fried
- Flour
- Fufu
- Baked – chips (achicha)
- LEAVES EDIBLE & medicinal

- Porridge
- Dried & mashed
- Soup thickener
- Good for Onubu soup, Ora soup, etc.
- The natural sugars give a sweet nutty flavor
- Eaten with vegetable

Cocooyam is primarily caloric
Nigeria has the largest population of cocoyam consumers, followed by Ghana (Sagoe, Marfo and Dankyi, 2001).

Small-scale Southeastern farmers who operate within the subsistence economy grow most of the cocoyam in Nigeria.

The surplus of the product is supplied to the market in the rapidly growing urban centers.
The bulk of the production of cocoyam is in Southern Nigeria.

It can be found in Africa, Oceanic & Asian Cultures

**Top Producers (2009) million metric tons**

- **Nigeria**: 4.4
- **China**: 1.7
- **Cameroun**: 1.7
- **Ghana**: 1.5
- **Papua New Guinea**: 0.3
Where we can plant Cocoyam

- Cocoyam tolerates shade and can be inter-planted in already existing stands of plantain and banana...
- Tree crops such as rubber or palms (akwu).
- In paddy fields where water is abundant ...
- Upland situations where watering is supplied by rainfall or by supplemental irrigation.
Grown along with rice & lotus) that can be grown under flooded conditions...
This is possible due to air spaces in the petiole which permit gaseous exchange with the atmosphere under water. For having maximum dissolved oxygen, water should be cool and flowing.
Cultivation

- Cocoyam is mostly planted in combinations with other crops, for examples,
  - cocoyam + maize + vegetable;
  - yam + cocoyam + maize + vegetable + plantain or banana + cocoyam and
  - plantain + cocoyam, maize + vegetable.
Warm and stagnant water causes basal rotting.

- For maximum yields, the water level should be controlled, so that the base of the plant is always under water.
- Flooded cultivation has some advantages over the dry-land cultivation.
The crop attains maturity within six to twelve months after planting in dry-land cultivation and after twelve to fifteen months for wetland cultivation.
HARVESTING COCOYAM

- The crop is harvested after a decline in the height and when the leaves turn yellow.
- The signals are usually less distinct in flooded taro cultivation.
- Harvesting is usually done by hand tools, even in mechanized production systems.
First the soil around the corm is loosened and then the corm is pulled up by grabbing the base of the petioles.
They have higher yields (about double), out-of-season production is possible which might result in higher prices and flooding is good in controlling weeds.

The global average yield is 6.2 tones/hectare but vary according to different regions.

In Asia, average yields reach 12.6 tones/hectare.
INDIVIDUAL/GROUP ACTIVITY

TESTIMONIES......

Share your ROLES, experiences & challenges....

.. In marketing COCOYAM

Let’s proffer solutions ...

..
WHERE WE CAN EXPORT COCOYAM

Eastern India Bangladesh
Southeast Asia
Eastern Asia
Pacific islands
Egypt
Eastern Mediterranean East Africa
West Africa
Caribbean & Americas.
Decline in Production of Cocoyam

Sagoe et al., (2001) observed that per capital production of the crop is on the decline ...

As population pressure on land continues to increase, the importance of cocoyam in ensuring household food security is given adequate recognition, even though the present yields are still below expectation. This could be attributed to a lot of factors such as climate variation, drought, poor cultural practices among cocoyam growers, pest and disease infestations (Ezenwa, 2010).
The alarming rate of land degradation and lack of improved varieties for commercial cocoyam and cocoyam leaf production.

Decreasing rainfall and poor soils have also been identified as some of the causes besetting the production and processing of cocoyam in Nigeria (Sagoe, 2006).
The Causes of Decline in Production of Cocoyam

Cocoyam is often referred to as women’s crop in some cultures, although observations show subcultures like Nsukka having men equally growing the crop.
SUMMARY OF CONSTRAINTS

- High cost of inorganic fertilizer,
- high cost of hired labour,
- scarcity of planting materials,
- lack of finance,
- low soil fertility,
- poor extension agent farmers’ contact,
- scarcity of farmland,
- weed problem and
- unavailability of organic fertilizer.
HOW DO WE FACILITATE EFFECTIVE COCOYAM FARMING?

... one of the strengths of being a good farmer is to know your crops well, rather than planting any crop you see.

Farmers understand the motivations for farming and their agricultural knowledge is essential to crop production and revenue generation.
Strategies for improving production and processing of cocoyam among women farmers
PLANTING STRATEGIES

Development of improved field production package for high yield, involving:

- Early planting
- Application of appropriate levels of inorganic and organic soil amendment materials.
- Mulching in open fields.
- Suitable inter-crops and time of introduction.
PLANTING STRATEGIES

Cultural control of Cocoyam Root Rot Blight Complex (a devastating disease that attacks Xanthosoma sp) by:

- Early planting (April/May)
- Use of fertilizer rich in potassium (80N, 30P and 100K)
- Well drained soil with no water logging
- Use of clean planting material.
TRIVIA STUFF

Tune into UNIZIK Radio 94.1 FM
Listen to ONESTREET RADIO TALKSHOW
with Dr. Will & Friends
Every Saturday @ 11:00AM
(What’s in it for me?)
“Lovelines & Lifelines”

Seyi - presenter

Adaugo - presenter

Dr. Will - Host
CURRENT CHALLENGES:

The ignorance of the nutritive value and diversities of food forms from cocoyam by a large percentage of the populace is a major limiting factor to general acceptability & extensive production of the crop.
CURRENT CHALLENGES:

The notion that cocoyam is a poor man’s crop is still prevalent & needs to be dispelled through the extension of proper information about the crop.
CURRENT CHALLENGES:

- Rot and decay during storage,
- lack of government support,
- ineffective extension service &
- shortage of planting materials.
CURRENT CHALLENGES:

Nigerian cocoyam needs to enter the international trade market and generate foreign exchange for Nigeria. This will in turn stimulate production.
CURRENT CHALLENGES:

- Land degradation and lack of improved varieties for commercial cocoyam and cocoyam leaf production.
- Poor funding
- This could be attributed to a lot of factors such as climate variation, drought, poor cultural practices among cocoyam growers, pest and disease infestations (Ezenwa, 2010).
CURRENT CHALLENGES:

A breakthrough in conventional breeding or through biotechnology is necessary to develop cultivars with more desirable traits, particularly resistance to diseases, other than those found in the local cultivars. This will widen the current narrow genetic base in the country.
GROUP ACTIVITY......

CONCLUDING ......

Share your thoughts on the PROBLEMS and Challenges....

let’s proffer solutions...

WHAT CAN WE DO......?

WHAT CAN THE GOVERNMENT DO....?
ON-GOING STUDIES:

Cocoyam Programme is one of the seven crop-based programmes at the National Root Crops Research Institute, Umudike.
ON-GOING STUDIES:

- Induction of flowering in cocoyam cultivars by chemical treatment
- Assessment of cassava starch-gelled medium for in vitro multiplication of cocoyam
- Efficiency of small-holder cocoyam production and storage in Anambra State
- Effect of post-harvest treatment on the control for rot in stored cocoyam planting materials
- Cost and return analysis of cocoyam production at NRCRI, Umudike.
IMPROVING PRODUCTION & PROCESSING OF COCOYAM AMONG WOMEN FARMERS

- Development of value-added products to extend shelf life and meet consumer acceptability from targeted cultivars.

**Examples:**

- Cocoyam crisps/flakes
- Soup thickener powder
- Flour (for confectionary)
- Starch.
IMPROVING PRODUCTION & PROCESSING OF COCOYAM AMONG WOMEN FARMERS

- Adequate provision should be made by the government to supply farm inputs such as fertilizers at the right time ...
- Encourage the formation of women farmers’ cooperative societies in rural areas for easy access to credit facilities.
- The use of more of family labour can reduce cost of production and lead to increased profit.
- Government should provide high yielding and disease resistant variety of crops to the farmers through the extension agents in order to boost the productivity of the farmers.
- Prices of farm inputs such as fertilizers should be subsidized so that farmers can afford to buy them for use in their farms; this will go along way in ensuring household food security.
REFERENCES

Ezenwa AJ (2010). Enhancing production and processing of cocoyam among farmers in Ihiala Local Government Area of Anambra State. BSc project, Department of Agricultural Extension, University of Nigeria, Nsukka, 2–3.


Web support

http://www.food-info.net/uk/products/rt/cocoyam.htm

www.wikipedia.com
REFERENCES

QUESTIONS???

THANK YOU

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