

Stabilizing Sesame yields and production in the Lango region, Northern Uganda

Presented by

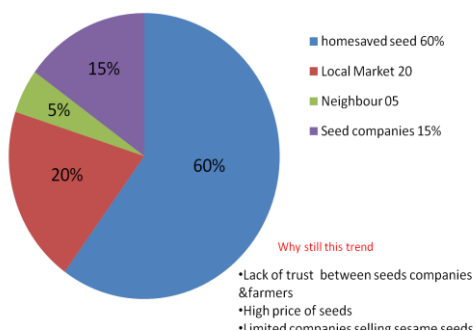
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At ARF Country Workshop Uganda Review in Botanical Imperial Beach Entebbe – Uganda

ISSUES

- Low productivity – lowest yielding (potential 700kg/ha; farmers getting 450kg/ha)
- reducing rainfall in the sub-region
- Increased occurrence of climate extremes; flooding and droughts
- Increasing incidences of sesame diseases and pests
- Constant cultivation of local variety by farmers

Sources seeds



So what is the project targeting?

- Understanding the impact of climate change on sesame production and productivity
- Developing & promoting climate smart sesame technologies and innovations.
- Increasing access of improved technology by beneficiaries
- Enhancing market access and good pricing.

Researching with farmers on climate impacts on sesame production & Productivity



Poor germination, less vigour and poor yield registered by farmers variety

Demonstrations

Result

Variety	Plot 1	plot2	Average yield(kg)/plot	Yield (kg) per acre
Sesame 11	1.6	1.2	1.4	280
Sesame 111	1.8	1.5	1.65	330
Local variety	1.1	1.1	1.1	220

*Farmers growing improved seeds can earn 297,000 (\$83) more than those producing local variety

*Beneficiaries' yield have increased by 44% 180kg in 260kg, 2016

*Demand of sesame improved seeds by farmers has doubled from 2tons to 4.5tons per year (sesame planting seed survey, 2016)

*Farmers can appreciate yield different between local and improve varieties that the project is promoting

Farmers are fully involved in data collection and analysis

Host farmers in Agweng Farmer Cooperative analyzing yield of the different varieties



On farm and station research on crop protection

Basically looking at pests and diseases of economic importance

- Leaf spot diseases: *Cercospora sesami* and angular leaf spot (*Cylindrosporium sesami*)
- Pests: (Webworm (*Asphondylia sesami*) and gall midge (*Antigastra catalaunalis*)

Pests that attack sesame seriously

Field heavily attacked by webworm



Gall midge attack on sesame



Treatments

- Fungicide alone (Rodazim)
- Insecticide alone (Cypercil in 2015 and Dudu-Acelamectin in 2016)
- Fungicide + insecticide combined
- No chemical application
- Varieties used:
 - 1-Local variety; 2- Sesim 2; 3- Sesim 3

Results for crop protection on sesame

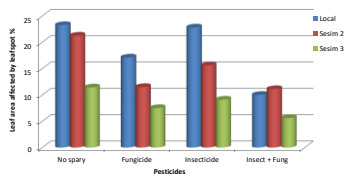


Fig 1: Effect of pesticides on *Cercospora* leafspot on sesame varieties planted at Amolatar, Lira and Otuke districts

Preliminary recommendation

- Fungicide alone effectively controlled leaf spot
- Applying fungicides is most effective when applied at the beginning of the disease occurrence (timely application)
- Apply pesticides two weeks after planting for webworm
- Apply pesticides at flowering for gall midge
- Use of resistant/tolerant varieties response more than susceptible varieties

QDS –seeds multiplication and distribution

- 1-Quality declared seed multiplication; farmers' capacity built in seed multiplication; contracted to multiply seed under NARO & breeder supervision
- 2- Establish network of seed stockiest in community
- 3- Farmers' linkage to seed companies



Sesame 2 multiplication in Adwari – Otuoke District

Promote market access

CBI- coach and link organization to European market
SITA- promote investment, tech transfer and trade in 5 EA countries

Lira resort – main buyer of sesame for export in Lango

SHARES – main buyer of sesame for export from Lango



Bulk marketing
God quality seeds

Opportunities

- Relative ease of expansion of cultivatable area by farmers in response to better prices
- Rising global demand for sesame; grains, oils and by-products
- Availability of premium markets such as Europe, India and China; and niche organic markets
- There is continuous effect to develop of drought and disease tolerance variety by NASARRI

Challenges

- Market needs white sesame but being produced is mixed (brown/black & white)



- Limited post harvest handling and value addition equipment – cleaner, colour sorter, expeller

THANK YOU



WE AIM AT MAKING THE BETTER BEST