Peanuts Sourcing in Sudan
Efforts and Challenges
Peanuts in Sudan...

- Sudan proudly boasts 14% of the world total peanut’s production and is one of the top five producers worldwide providing much needed foreign exchange. In fact, groundnut cultivated area represents about 35% of total cash crop area.

- Domestic use of this legume includes households’ food consumption and additives to solvents, oils, local medicines, dyes and cosmetics.

- Two varieties of groundnut are grown in Sudan; one is grown in the western part of the country accounting to 60-70% of the total production whilst the other variety grows in Gazeria and East Sudan.
Darfur Peanuts...

• The ‘western’ groundnut that is typically grown in Darfur is known to be of better quality possessing higher levels of protein and oil.

• Darfur, however, has been constantly caught up in a vicious circle of insecurity, conflict, and economic hardship hindering thus steady production of groundnut. Unequal access to livelihoods opportunities in the region has further intensified tensions between the existing communities particularly in areas receiving a large number of returnees fleeing the nearby war.
Investing in Value Chain...

• Due to the fact that the current supply of high graded premium groundnuts is quite unreliable and the products’ quality is uncertain. Samil, in the past had to source its requirements of groundnuts from different sources to produce the RUF.

• Therefore, for both parties, the establishment of a “Certified Sorting Line for the Production of Food Graded Peanuts in El Daein – East Darfur - Sudan” represents a logical extension of their combined business activities in the country as the production will also partly be utilized in the production of ready-to-use food (RUTF).
Quality/Food Safety Systems in groundnut value chain

Stage 1: Farming
Good Agriculture practices
- GAP
- Biocontrol

Stage 2: Harvest and Primary production of Kernels
- Food safety initiatives / HACCP/ GAP/GSP
- Aflatoxin Field Laboratory

Stage 3: Roasting and Blanching of Kernels
- Food safety initiatives / HACCP
- PRPs
- Sampling and testing methods

Stage 4: Production of RUF
- Food safety initiatives / HACCP
- Sampling and testing
Collaboration with Farmers...

• Cooperation agreements have already been signed with local agricultural cooperatives (Union Farmers) ensuring the producers to obtain an income. Trainings and assistance are also provided to producers to increase the quality and to secure market for their product.

• The project also participates in the development programs of introducing modern tools and methods to the farming activities.

• The project implemented the mechanical plantation of peanuts as the first experiment in Darfur through two demo farms of 200 feddans. The area will be increased gradually to reach 10,000 feddan with association of the farming societies.
AFLATOXIN A Fungal Toxin Infecting the Food Chain

Persistent high levels of aflatoxins—naturally occurring carcinogenic byproducts of common fungi on grains and other crops—pose significant health risks to animals and humans in many tropical developing countries.

Chronic exposure to aflatoxins leads to liver cancer and is estimated to cause as many as 26,000 deaths annually in sub-Saharan Africa. This infographic depicts the ways that aflatoxins persist throughout the food chain. At each level, research can help understand how to manage risks.

Susceptible Crops
Field crops infested with aflatoxin
- Tree nuts
- Oil seeds
- Corn
- Cereals
- Spices

Poor Storage
Toxins increase during storage

Animal Consumption
Animals and dairy are infected from contaminated feed

Impact on Dairy Production
Livestock produce less, loss of income and food

Human Consumption
Humans consume toxins in staple foods and dairy products

Impact on Human Health
Consumers experience liver cancer, poisoning
- Acute poisoning
- Liver cancer
- Linked to stunting and immunosuppression

Source: Tackling Aflatoxins: An Overview of Challenges and Solutions, Laurian Umehweh and Della Grace
Economical effect...

<table>
<thead>
<tr>
<th>Aflatoxin in (PPB)</th>
<th>Price (USD)/Ton</th>
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</thead>
<tbody>
<tr>
<td>Raw peanuts (HPS)</td>
<td>&gt; 20</td>
</tr>
<tr>
<td></td>
<td>600 - 800</td>
</tr>
<tr>
<td>Raw peanuts (HPS)</td>
<td>&lt; 4</td>
</tr>
<tr>
<td></td>
<td>1200 - 1400</td>
</tr>
<tr>
<td>Roasted Peanuts</td>
<td>&lt; 4</td>
</tr>
<tr>
<td></td>
<td>1600 - 1800</td>
</tr>
</tbody>
</table>

Total Production Volume

1.83M

- Last year: +75.2%
- Last 3 years: +3.3%
- Last 5 years: +54.1%

- Ranked 5th, 4.2% of world imports

Export

$49.78M

- Last year: -45.9%
- Last 3 years: +6464.3%
- Last 5 years: +388.6%

-Ranked 10th, 1.7% of global exports
- Ranked 24th, 2.1% of Sudan's exports
Aflatoxin Management through Biocontrol (Aflasafe)

• Developed by the USDA-ARS and transferred to Africa through the International Institute of Tropical Agriculture (ITTA) and partners program (ATTC)

• Technology developed by Aspergillus flavus AF36 was the first aflatoxin biocontrol product developed in the world

• Approved for use in cotton, maize, pistachio, almond and fig grown in the US

• Aflasafe is a biocontrol pesticide product, made up of non-toxic strains of Aspergillus
**AFLASAFE BENEFITS**

- **Safe natural solution to aflatoxin**
- **Cuts aflatoxin levels in maize and groundnuts 80% to 100%**
- **Single application per season**

- **Avoid damage to children’s growth, vulnerability to illness, and reduce thousands of cancer cases every year**
- **Add millions to the economy through annual exports**
- **Costs 12 – 20 USD per Hector – Approx. 14.3 $ per ton of RP**
Thank you!