

Soyabeans: Nutrition, uses and how to cook

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Soya Beans are Nutritious

High in:

- Good fats
- High quality protein
 - (flour is 50% protein)
- Vitamins
- Minerals

But care needs to be taken with cooking

Soya's anti-nutritional factors can be removed if care is taken to

- ✓ Soak the beans
- ✓ Use moist heat cooking

The soya bean is a also a very useful bean

Products:

- ✓ **Whole beans:** soaked, then cooked like beans or peas
- ✓ **Soya Nuts:** whole bean soaked, briefly cooked, dried, roasted
- ✓ **Soya Milk;** whole beans soaked, ground, briefly cooked, milk pressed out
- ✓ Whole beans separated into **oil and flakes of dry beans**

Many products are possible

Soya beans eaten whole:
Dried beans are soaked 12 hours then cooked
until tender



Soy nuts – soak, then cook a short time (45 minutes) then dry, roast and salt



Soya milk can be made at home or with a machine

Soak soyabeans, grind fine, cook a few minutes then extract milk

Small scale machines are available



Uses of soy milk

Formula for babies



Drink for children and adults



Easy to make soya yogurt keeps longer than fresh soya milk



Soya milk can also be dried and remixed with boiled water



Ugandan product

Most soy products in Uganda and America come from the separation of oil and remaining dry bean, made into flakes



A number of companies are producing soya products in East Africa and Uganda

- East African Basic Foods, LTD



- SESECO



Soy oil export from Uganda



Soy flakes can be treated and ground into soya flour or made into other products



Soya flour can be added to posho, karoomatooke

Without



With 10% soy flour



Soy flour is often used in baked products to replace some wheat flour



The ideal amount to add is about 10% soya flour

25 % -- too much protein



12% soy soya flour chapatis

Ugandan soy products by SESECO



Meat substitutes



Soy protein textured into meat



tofu made of soy milk

More SESECO products

Soy-cup



Soy-sip drink

Brown Butter:
Soy-sesame
G-nut butter



The **Chinese** have grown soya beans for 5000 years. They use whole soaked soya beans. The Japanese adopted soya from the Chinese.



Soy milk

Miso — fermented
soya paste— soup base

Edamame —nearly
mature pods cooked
like a vegetable

Tofu is made from
coagulated soy milk

Tofu is is very popular in China,
Japan and more recently the U.S.A.



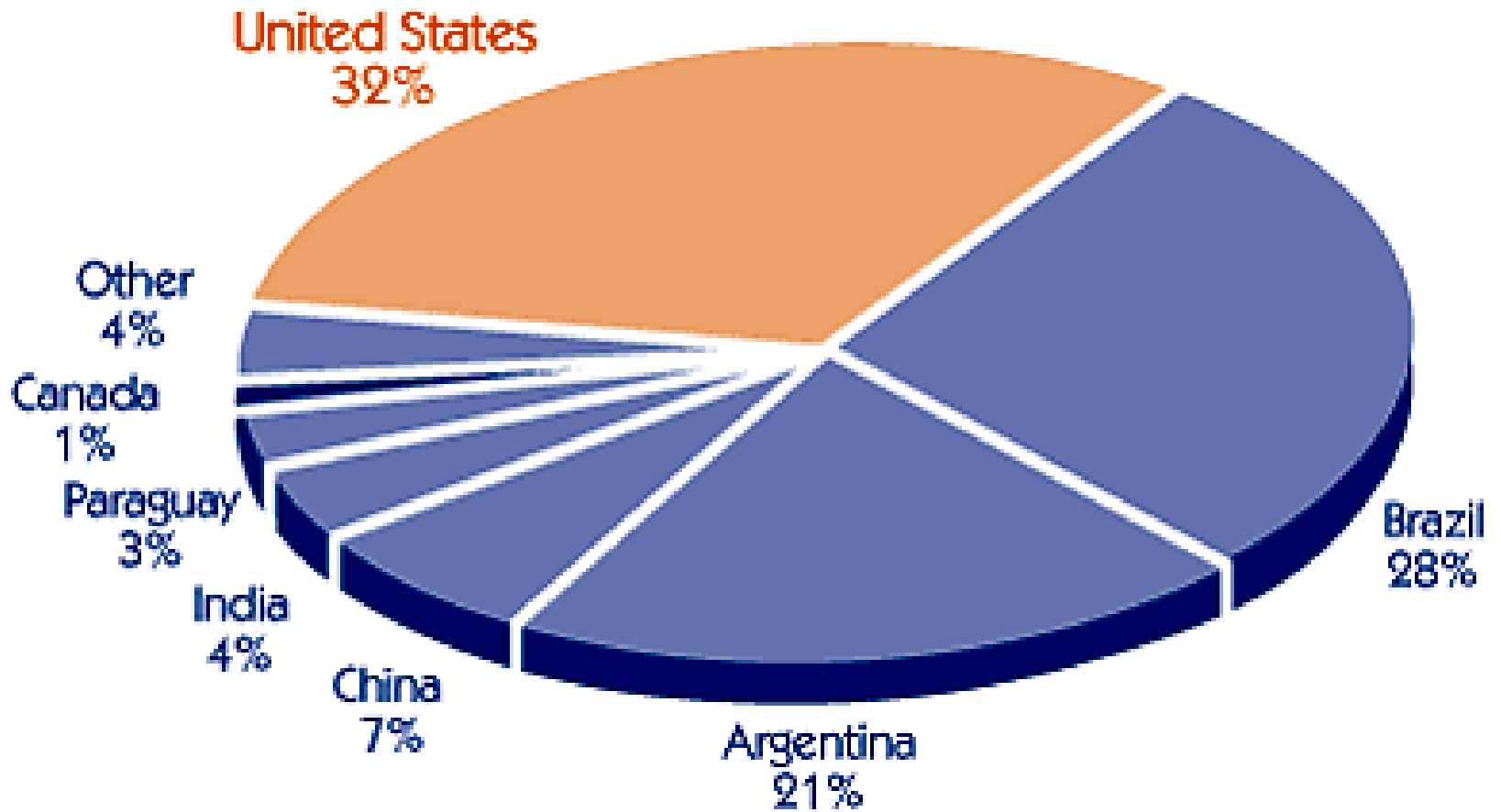
fried with spices

Deep fried



In
soup

U.S.A and Brazil export soy to China for both human and animal food



World soy production, 2008

Indonesia produces **Tempeh**:
cooked whole soybeans fermented with a mold



It has a nutty, earthy flavor like mushrooms

Tempeh from fermented whole beans is not widely known outside of Indonesia and America - but is very delicious



Grilled tempeh



Frozen tempeh for storage

How to cook whole soya beans



- 1) First soak beans for 12 hours (overnight) in 3 cups water for every cup of soya
- 2) Discard water and wash beans
- 3) Add the same amount of water to beans in a sauce pan (3 x original measurement)
- 4) Bring to boil
- 5) Cook covered for 2-3 hours

Cooking soya (7 kg!) and roasting dried beans after soaking and cooking (45 min.)



Soya bean cooking workshops in Pakanyi and Bwijanga



Madakwa (pounded soya with enjagi)

We worked with women farmers and extension agents to help us develop traditional recipes that incorporated soya



KimyedeKyaMukenena soya

People were enthusiastic and liked the recipes



We developed 8 whole soya bean recipes



Soya flour was added to busera, kahungaand karo;
also as thickener for suupu;

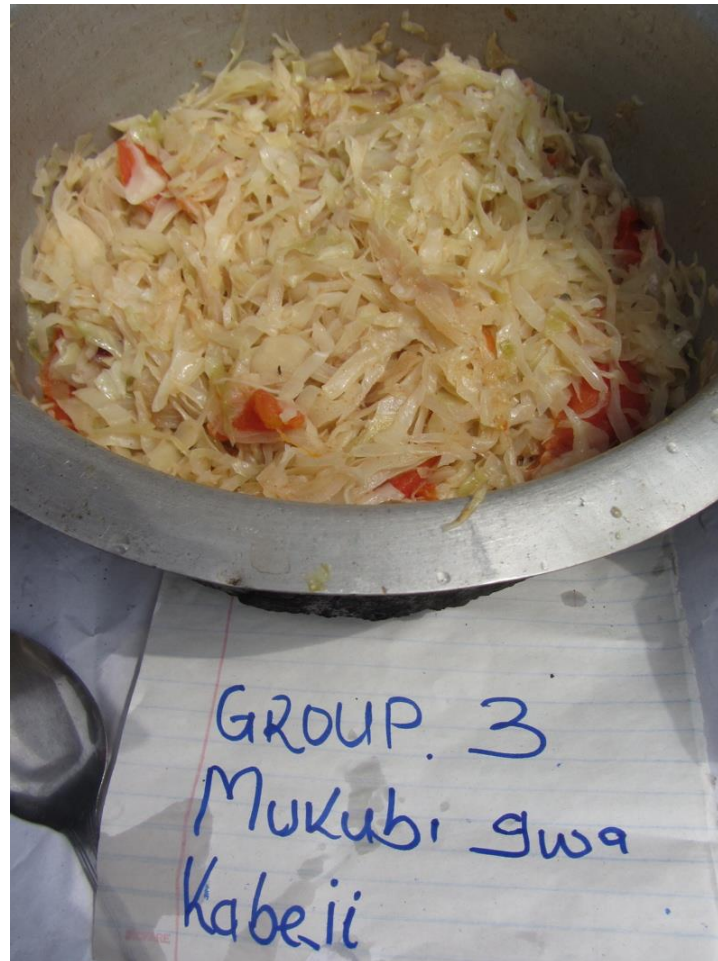


Soya flour can be used to enrich breads and thicken soups



Soya flour used to thicken Kabeji cooking water

Makes a good
suupu



Wheat flour products were made with 12 or 24% soya flour to test acceptability



Women were able to watch men cook and men learned that they could do it....





Though some preferred to sit

We hope we can convince you by tasting that soya beans and soya flour can be delicious

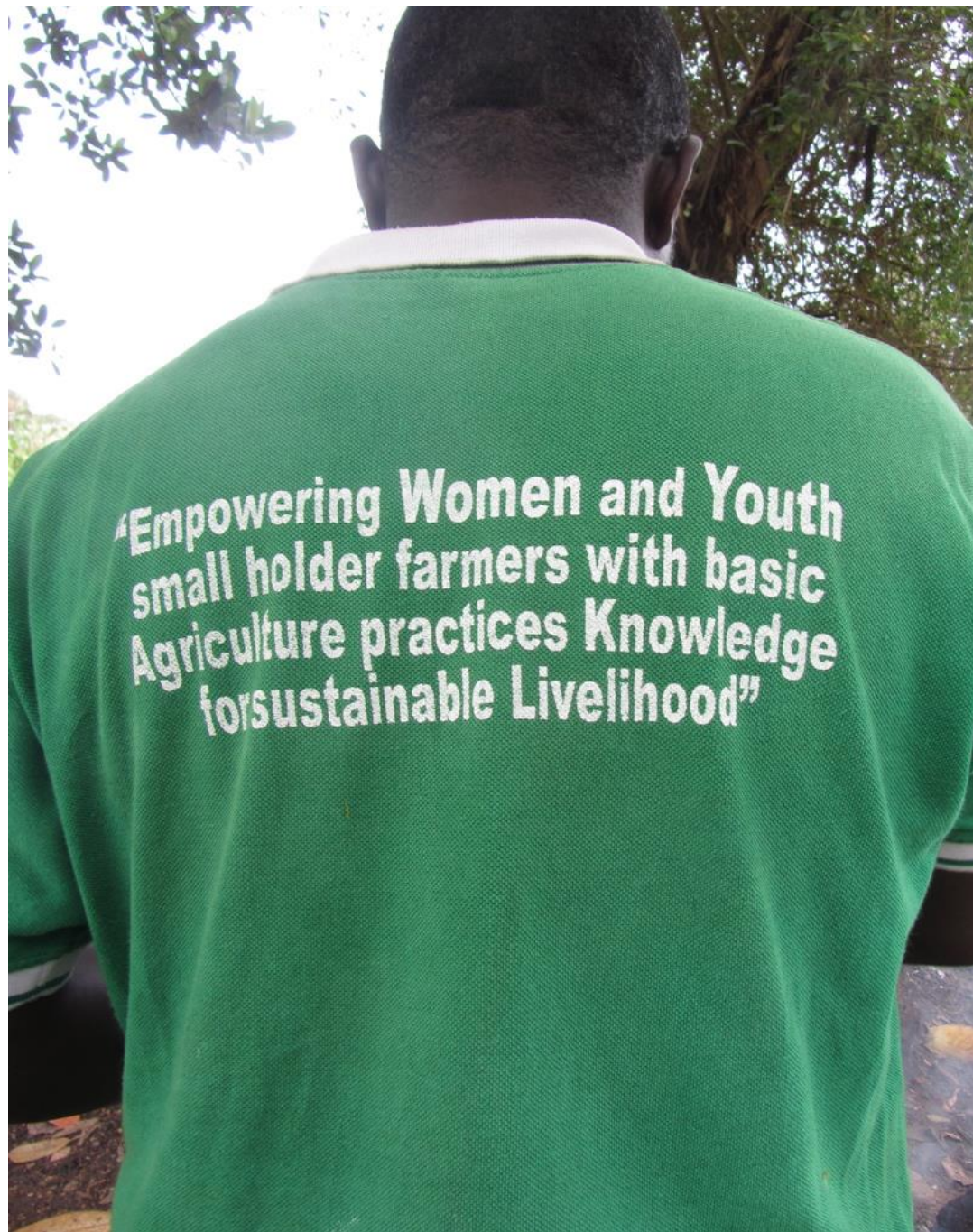


Our menu

- 1) Busera— 10 percent soya flour
- 2) Mukubigwa soya with whole soya, fried onions, tomatoes and spices
- 3) Kikobeko (Matooke and soya beans)
- 4) Posho



Many thanks to
Solo Kuhuma



**“Empowering Women and Youth
small holder farmers with basic
Agriculture practices Knowledge
forsustainable Livelihood”**