Home Soyfoods Production: Soymilk, Yogurt, Porridge, Tofu/Paneer +

Improved nutrition in rural and urban settings, including schools etc.

This highly scalable business and nutrition approach is compelling for end-users due to its low capital cost, ease and economy of operation, profitability and positive health impact. Estimated un-subsidized cost of the SoyaKit to the end-user is $290.

The practice of home production of soymilk, yoghurt and related foods has been applied and studied in various forms in Uganda and South Africa. However these initiatives are limited to very small output (under 2 L/hr), primarily for in-home consumption. They also involve laborious manual stone grinding and other production and quality challenges. Larger systems, such as the SoyCow and VitaGoat, require investments of $5,000 - $10,000 for equipment and infrastructure, for output in the range of 30-50 L/hr.

This kit will enable production of 7 L/hr of soymilk or yoghurt, 1 kg/hr of tofu and more than 10 L/hr of soy porridge, using 100% of the soybean plus a local starch component such as maize or sorghum flour or meal. It does not require electricity, and uses heat-retention cooking to reduce fuel cost, smoke etc. by more than 50%. Estimated profit potential of $2.00 per hour is based on typical input costs and highly competitive pricing of the home-made products - far below cost of animal milk products. With only several hours of daily production, this level of income would substantially improve the living standard of a typical household, as well as improving the health of the soyfood consumers. This output capacity is also ideal for small schools, clinics and other institutions. Three hours of work, by one or two people, can provide a serving for more than 100 people. A group of three kits could produce 20+ L/hr.

SoyaKit: Home Business in a Box

START

Soak .5 kg soybeans
Grind
+ 4 L water, boil
Cook 20 minutes

3.5 L of soymilk 7 L per hour

Filter out okara
5 L of soy slurry 10 L per hour

+ .5 kg maize, garri, rice, etc, cooked in 1 L water

1 kg wet okara (soups, bread, snacks, animal feed)

+ coagulant, separate curds and press

500g tofu / paneer 1 kg per hour

+ yoghurt + sugar, incubate 7 hours

3.5 L yoghurt 7 L per hour

7 L of soy porridge 10 to 15 L per hour
Beyond the particular value for soymilk and yogurt production, all the kit contents have extended utility in a home or home business. Most importantly, the heat retention cooking bag can be used for most other cooking, thereby saving at least 50% in fuel costs and environmental impact, and the corona mill/grinder can be used for nuts, cereals and grains, etc. to make butters, pastes or coarse flours. Further reductions in fuel usage are possible with options to be considered on a local supply basis, such as energy-efficient stoves (a.k.a. smokeless chulas) and solar cookers, to eliminate fuel requirement entirely.

The SoyaKit contains:

- Heat retention cooking bag
- Food-grade plastic pail
- Mixing spoon
- Tofu ladle
- Good quality 8 liter (quart) cook pot
- Standard corona mill / grinder
- Lined rubber gloves
- 3 Nylon filter bags
- Graphic manual
- Cheese cloth
- Thermometer
- Colander

All packed in a large plastic bin - useful also for bean storage or as wash tub etc.

Partners are currently being sought to launch the SoyaKit program.

Tel: 1 613 742 6888 Fax: 1 613 745-8258 E-mail: matters@malnutrition.org  www.malnutrition.org