For more information, write or call:

TECHNOLOGICAL SERVICES DIVISION

Industrial Technology Development Institute (ITDI-DOST) Telefax: 837-2071 loc. 2265 / 837-6156 e-mail: tsd@itdi.dost.gov.ph

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Livelihood Technology Series 26

SOYBEAN FOOD PRODUCTS



Department of Science and Technology INDUSTRIAL TECHNOLOGY DEVELOPMENT INSTITUTE DOST Compound, General Santos Avenue Bicutan, Taguig City, Metro Manila, PHILIPPINES http://www.itdi.dost.gov.ph

'Our Business is Industry..."

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Prepared by:	ELNILA C. ZALAMEDA TSD-ITDI	
	Ma. DOLOR L. VILLASEÑOR FPD-ITDI	
Edited by:	VIOLETA B. CONOZA TSD-ITDI	
Cover layout by:	LUZMIN R. ESTEBAN TSD-ITDI	
Adviser:	NELIA ELISA C. FLORENDO TSD-ITDI	

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SOYBEANS FOOD PRODUCTS

INTRODUCTION

The increasing popularity of soya foods is mainly attributed to the large amount of health benefits which are associated with the isoflavone content of soya beans. The role of soya in the diet in the prevention and alleviation of chronic diseases continues to be clinically studied and documented by scientists around the world.

Soya is very important protein source for vegetarians. It has a high protein content and soya is rich in vitamins, minerals and fibers.

Soya beans are very versatile. Soya beans can be processed as soya milk, *tokwa*, soy sauce or *miso*.

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ТАНО

Raw Materials

- 500 g soybeans
- 2.5 liters water
 - 2 pcs gulaman bars
 - 1 cup sago

Syrup

250	g	brown sugar
250	mL	water
1⁄4	tsp	vanilla

Utensils

- 1 pc weighing scale
- 2 pcs basin
- 2 pcs colander
- 1 pc grinder or blender
- 1 unit stove
- 2 pcs casserole
- 2 yards cheesecloth
 - molder

- 1. Soak beans overnight, wash and remove the hulls.
- 2. Grind finely (using a grinder or blender) while adding hot water.
- 3. Put soybean in a cheesecloth and squeeze out milk.
- 4. Boil soymilk for 5 to 10 minutes. Stir and add *gulaman* (previously dissolved in 1 liter boiling water). Allow to boil for another 10 minutes.
- 5. Pass the mixture through cheesecloth then pour in a molder.

6. Cool and serve with syrup and previously boiled and syruped sago.

To make syrup, boil water and brown sugar under moderate flame. Add flavor (vanilla, *pandan*, lemon) when sugar dissolves and mixture has boiled. Cool.

TOKWA

Raw Materials

500	g	soybeans
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- 60 g CaSO₄, food grade (calcium sulfate)
- 2.5 L water

Utensils

grinder or blender	basting spoon
stove	plastic basin
stainless casserole	knife
weighing scale	cheesecloth (1 yard)
	tokwa press

- 1. Weigh 500 grams soybeans.
- 2. Soak in clean water for 6 hours.
- 3. Wash and remove the hulls.
- 4. Grind the soybeans adding water at a time till the volume is 2.5 liters.
- 5. Strain in cheesecloth (*katsa*).
- 6. Boil the soymilk for 10 minutes.
- 7. Cool to 55°C to 60°C.
- 8. Add 60 grams of food grade $CaSO_4$.
- 9. Transfer to a cheesecloth-lined *tokwa* mold.

- 10. Press for 1 hour, enough weight to squeeze out the excess water to form a solid *tokwa*.
- 11. Remove from press and slice to desired size.
- 12. Pack in plastic bags, seal and store in refrigerator.

TAOSI MAKING

Taosi is salty fermented beans commonly used in food preparation or as condiment of Filipino dishes.

Raw Materials

soybeans salt rice bran wheat flour water *Aspergillus oryzae*

Equipment

cooking container jar for fermentation shallow bamboo basket (*bistay*)

- 1. The soybeans are washed in several changes of tap water and soaked overnight. The soaked beans are drained and washed.
- 2. The beans are boiled until they are tender that they can easily be pressed between fingers.
- 3. The boiled beans are transferred into a shallow baskets or *bistay* to drain and cool.

- 4. Beans are dried for 30 minutes either under the sun or for one hour in the shade.
- 5. Cooked dried beans are then coated with roasted wheat flour.
- 6. One teaspoon per 3 kg of a 3-day old rice bran culture of yellow-greenish mold known as *Aspergillus oryzae* is introduced to the beans as seed. The mixture is mixed thoroughly.
- 7. The seeded beans are spread to a thickness of about 1-2 inches thick in the basket. Then covered with either cheesecloth or clean Manila paper and allowed to stand for 3-4 days in a damp clean place till it is profusely covered with the mold growth.
- 8. The beans with molds are transferred into a jar containing a brine solution (20-22%) and is covered.

SOYBURGER

Raw Materials

soybean pulp (or residue of soymilk		
extraction) [sapal]	5	cup
garlic, minced	5	рс
eggs, slightly beaten	2	рс
onion, chopped	3	рс
green onions	6	stalks
red bell pepper, chopped	2	medium-sized
cooking oil	1/2	L
salt to taste		
pepper to taste		
soy sauce to taste		
chili powder (optional)	1/2	tsp
margarine (optional)	2	tbsp
powdered milk (optional)	2	tbsp
flour	1/2	cup

Coating Mixture

eggs, slightly beaten	4	рс
breadcrumbs	2	cup
salt to taste		
pepper to taste		

Utensils

frying pan	chopping board
turner	wire screen/sieve
basin	measuring cups & spoons
knife	

Procedure

- 1. Mix all ingredients, except the coating mixture and cooking oil.
- 2. Form into balls.
- 3. Dip into beaten eggs and roll in breadcrumbs.
- 4. Form into patties.
- 5. Fry until golden brown.

SOYMILK 1 (Unflavored)

Raw Materials

- 1 cup soybeans
- 3 cup water

Utensils

basin (stainless/aluminum) k cheesecloth s measuring cups c ladle

blender stove casserole

Source: Great Flavor of Soybean Philippine Council for Agriculture, Forestry and Natural Resources Research & Development

Procedure

- 1. Soak beans overnight, rinse well and drain.
- 2. Cook in boiling water for 30 minutes, then drain.
- 3. Blend beans until fine.
- 4. Mix with hot water then strain mixture through a cheesecloth.
- 5. Squeeze out milk and boil for another 15 minutes.
- 6. Transfer while hot into jars or bottles

SOYMILK 2 (Flavored)

Raw Materials

- 1 kg soybeans
- 1 tsp vanilla
- 3¼ cup white sugar
 - 3 cup water

Utensils

basin (stainless/aluminum)	blender
cheesecloth	stove
measuring cups	casserole
ladle	

- 1. Soak beans overnight, rinse well.
- 2. Grind.
- 3. While grinding, pour hot water a little at a time.
- 4. Strain the mixture through a cheesecloth.
- 5. Squeeze out the milk then boil for 10 minutes.
- 6. Add 3¼ cups sugar and ½ teaspoon vanilla while mixing.

- 7. Transfer while hot into bottles. Cool and refrigerate.
- Source: Great Flavor of Soybean Philippine Council for Agriculture, Forestry and Natural Resources Research & Development