# OTOP PEANUT IN QUIRINO PROVINCE

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1<sup>ST</sup> INTERNATIONAL CONFERENCE ON FOOD, ENVIRONMENT AND CULTURE Hotel Supreme, Baguio City May 16-18, 2017

#### INTRODUCTION

Peanut is a good source of Niacin, folate, fiber, Magnesium, Vitamin E, Manganese and Phosphorous (FNRI). It is naturally free from trans-fat and sodium and the anti-oxidant content is higher than carrots and beets.

Losses due to aflatoxin contamination in Indonesia, Thailand and Philippines are estimated at \$900 M annually (Schinaleiii, 2012). Economic losses have been attributed to yield loss due to; (1) disease induced by toxigenic fungi; (2) reduced crop value resulting from mycotoxin contamination; and (3) losses in animal productivity from mycotoxin related problems.



#### INTRODUCTION



To eliminate aflatoxin contamination in the food supply chain, there is a need to explore and implement interventions on proper agricultural practices, simple toxin detection methods, suitable postharvest handling practices and biocontrol practices.



Appropriate packaging material is also important in controlling aflatoxin contamination.



Improvement of the packaging system in peanut should also be accompanied by improved storage and processing techniques. Carefully selected and well-stored raw materials have better shelf life and quality. Woodroof (1983) reported that the shelf life of peanut butter depends on the quality of raw peanuts used, methods of curing and storage of the raw kernels, and the methods used in manufacturing and storing the products.

## **OBJECTIVES**



#### **GENERAL OBJECTIVE**

To produce safe and quality peanut product and add value in the marketing chain through the application of appropriate postharvest handling and packaging systems, and the creation of new marketing opportunities for small scale farmers.



#### Specific Objectives:

- To develop appropriate packaging system for semiprocessed and processed OTOP-developed peanut food products in the province;
- To pilot test developed packaging system of OTOPdeveloped peanut food products and,
- 3. To develop an appropriate marketing system for processed peanut food products.

#### CONCEPTUAL FRAMEWORK

Schematic Diagram on Generation and Transfer of Technology of QSU

ITDI

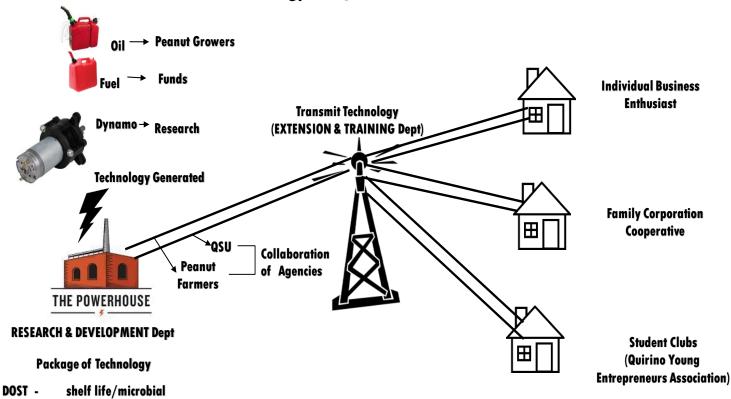
DTI

IP0

**Processing method** 

**Quality control** 

Improvement of packaging



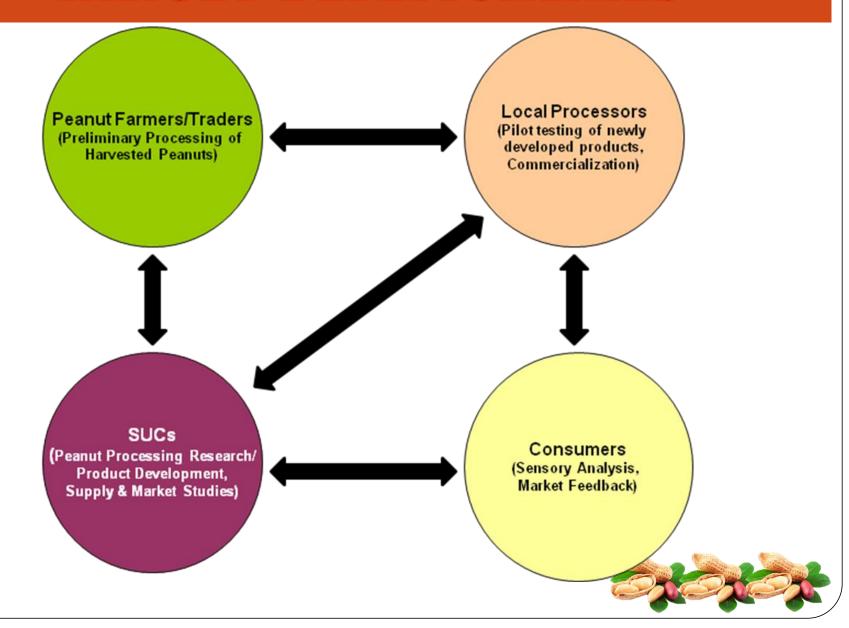


#### **METHODOLOGY**

- Understanding the Market Chain
- Market Testing of OTOP developed Peanut Food Products
- Participative Analysis of the Market Chain/Opportunities
- Pre-feasibility Analysis
- Preparation of Business Plan



#### TARGET BEFEFICIARIES





#### Status of R&D on Peanut Processing among Participating SUCs

Product	\$UC/ Region	<b>Status</b>
Peanut Butter	BSU/ CAR	On-going (oil
		separation studies)
Peanut Crunch	BSU/ CAR	completed
Peanato	BISU/ Region 7	completed
Peanut Coffee	TCA/ Region 3	completed
Ice Cream	TCA/ Region 3	completed
Sand-cooked	MMSU/ Region 1	completed
Peanut		
Peanut	QSU/ Region 2	Completed
Butterscotch		
Square		



### > Improvement of packaging











#### Nutrient Analysis

Analysis	Result	Method *
Crude Protein Content in gram	7.95	AOAC 920.87
per 100 grams (g/100g)		
Crude Fat Content (g/100g)	20.07	AOAC 922.06
Ash Content (g/100g)	2.494	AOAC 923. 03
Moisture Content in gram per	6.088	AOAC 925.45A <sup>1/</sup>
100 grams (g/100g)		
Carbohydrates Content (g/100g)	63.40	By difference
Food Energy Content in Calories	466.0	21 CFR 101.9 <sup>2/</sup>
per 100 grams (Cal/100g)		
Calories from Fat Content	180.6	
(Cal/100g)		





#### 💸 Aflatoxin Analysis



FDC Report No. C-15-08-44 Date: August 28, 2015

Reference Document: RFDCS No. 31465

(Sample No. 2)

#### Report of Chemical Analysis

Sample: Valley Nuts Peanut Butterscotch

Client Name and Address: Quirino State University

Diffun, Quirino

Number of Sample/s, Package Description and Code: One (1) labeled plastic container, containing

25 pieces of the sample with a total weight of 350 grams, uncoded

Date Sample Submitted: July 27, 2015

Date Sample Analyzed per Schedule: August 24-26, 2015

Type of Analysis and Result/s (based on a composited sample of 25 pieces):

Analysis	Result	Method
Aflatoxin Content in parts per billion (ppb)	None Detected	AOAC 970.45 <sup>1/</sup>

\* Limit of Detection = 5 ppb

1 Official Methods of Analysis of AOAC INTERNATIONAL (2005) 18th Ed., AOAC INTERNATIONAL, Gaithersburg, MD, USA.

Other Information:

1. Samples submitted by Ms. Fredisminda M. Dolojan.

2. Per client's instruction in RFDCS No. 31465, samples were composited for analyses.

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Conducted Consumer Acceptability Survey using the 9
Point Hedonic Scale with 100 respondents.

A total sales of Php93,300.00 from August 2014-present.

ldentified four (4) Adoptops

- two (2) individual entrepreneur
- one (1) company corporation (4H)
- one (1) student club (Q-YEA)
- Identified two (2) Market Outlets
  - Diffun Pasalubong Center
  - Quirino Experiment Station (QES) Agribusiness
     Center
- Participated different exhibits nationwide.



#### COST AND RETURN ANALYSIS

REVENUE  Cash  Sales – 1000 packs x 50,000.00
Sales – 1000 packs x 50.000.00
<b>r</b> ,
P50.00
Total Revenue 50,000.00
EXPENSES
Cash
<b>Peanut</b> 3,000.00
<b>Butter</b> 5,700.00
<b>Label</b> 5,400.00
Packaging 1,800.00
All-purpose flour 1,200.00
<b>Sugar</b> 1,687.50
<b>Glucose</b> 3,900.00
<b>Eggs</b> 1,800.00
Maple syrup 750.00
Baking powder 75.00

Vanilla	75.00
LPG	75.00
Labor	750.00
Transportation	3,000.00
Contingency (5% of	500.00
direct cost)	1,456.88
Non Cash	
Depreciation	82.19

<b>Total Expenses</b>	31,175.00
NET INCOME	18,824.30
ROI	60.38%



# THANK YOU!!!

GROWING NUTS
WITH PEANUTS ©