

Strawberry Industry in Benguet Province La Trinidad Experience

SGRA SEMINAR 21

**“Sustaining the Growth and Gains of Research Development and
Extension”**

Ben Palispis Hall , Provincial Capitol

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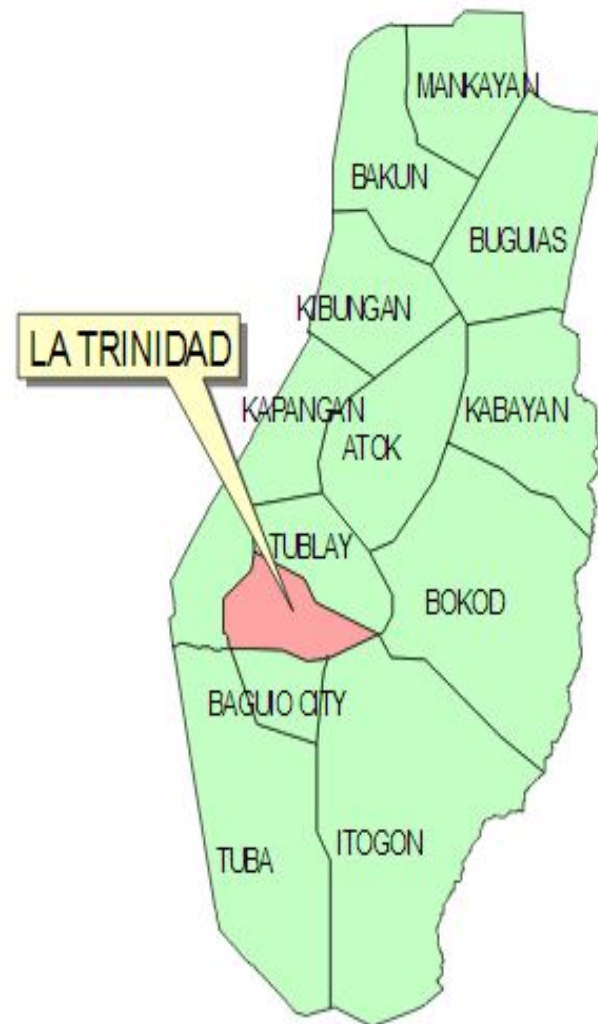
Scope of Presentation

- ❖ An Introduction of La Trinidad, a Municipality of Benguet
- ❖ Strawberry production , farm practices and challenges
- ❖ Extension delivery and researches conducted in support to the development of the strawberry industry (Production, marketing and promotion)
- ❖ Strawberry Industry Fostering Culture , Arts and Tourism.

Cordillera Administrative Region



Philippines



Benguet Province

Municipality of La Trinidad



- **Capital Town of the Province of Benguet** (total land area of 80.795125 square kilometers representing 2.7% of the total province area).
- **Population . 129,133** with **31,828** Household
- **Steep mountains and high terrain**, amidst the mountain peaks, is an approximately 350-hectare valley
- **Elevation ranging from 500 to 1,700 meters**. The highest elevation is at 1,700 meters on the south-eastern portion near the Ambuklao Road at Beckel. The valley floor has an elevation of 1,300 meters above sea level. Bineng is the lowest barangay, with an elevation of 500 meters above sea level
- **Cool, invigorating temperature** with mean average of 17.9°C due to local wind circulation and mountain breeze, where the months of December, January and February being the coldest months; and March, April and May, the warmest months.
- **Relatively the most developed settlement in the province of Benguet** because of its proximity to the City of Baguio. It is the gateway of the southern lowlands into the Cordillera Region. Due to its advanced development, La Trinidad is considered as one of the Central Business Districts of Benguet.

Main Industry: Agriculture and Agro tourism

- The Municipality has **4,718.44** hectares of agricultural land. This represents **58.40%** of the land use of the municipality. However, the total area devoted to agriculture is 3,060.00 hectares.
- Total Number of 18,820 farmers
- Average of 5,933 Farming Households

Major Crops:

- *Vegetables (1,863.89 Ha.)*
- *Flowers (1,042.26 Ha)*
- *Strawberries (72.51 Ha)*

Agri-Tourism... 259,000 registered tourist (2016)

Humble beginning.... Once a sleepy town



La Trinidad Now.... The Central Business District of the Province of Benguet... and gateway to the Cordilleras



Salad Bowl of the Philippines



***Rose Capital of the
Philippines***



La Trinidad hosts the Vegetable trading Centers

**La Trinidad
Vegetable
Trading Post
(LTVTP)**

**Benguet
Agri-Pinoy
Trading Center
(BAPTC)**



Production Profile of the Strawberry Industry

- Area Planted to Strawberry = 74 hectares**
- Number of Strawberry Farmers = 1,078**
- Average Number of farm helpers (Laborers) = 560**
- Average Production Month : 6 months (open field) 8 to 10 months (Protected)**
- Number of Strawberry Processors = 38**
- Average Number of Strawberry Vendors= 126**
- Common Strawberry Varieties = Sweet Charlie, Festival**
- Number of Strawberry Based Rural Based Organizations = 5**
- Strawberry Nurseries/sources : MLGU, PLGU, DA CAR, BSU and some trained Farmers /direct Importation**

Challenges to Strawberry Production

- *Pest and diseases outbreaks*
- *Natural Calamities /Climate Change ..Typhoons, La Nina, El nino*
- *Decreasing production areas (commercialization)*
- *Supply of Quality Planting Materials*
- *Technology on All Season Strawberry Production*
- *Improvement Post Harvest and Value Addition Technologies*
- *Organic Strawberry Production*
- *Limited sources of Irrigation water*

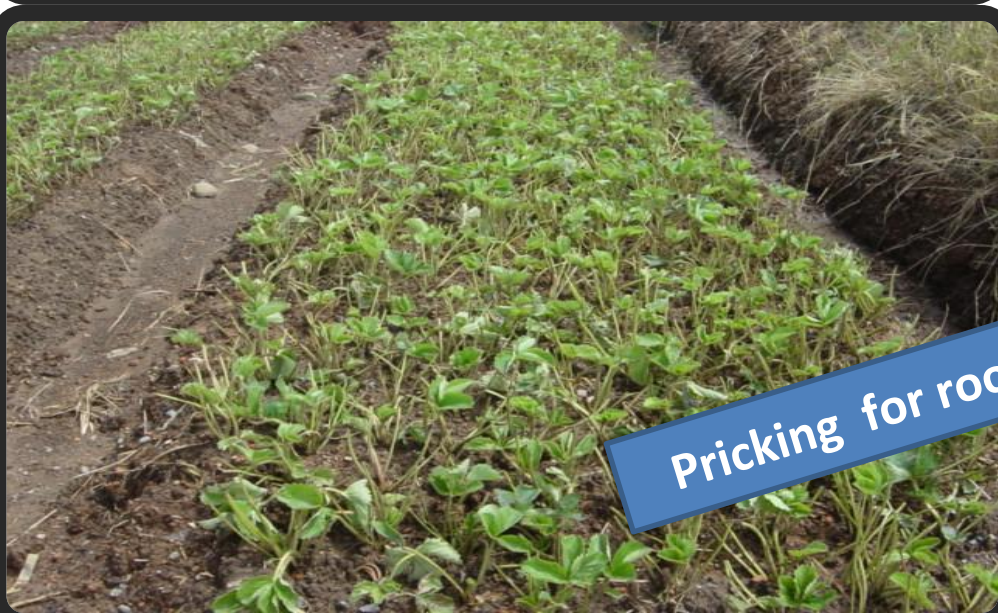
Delivery of Agricultural Extension Services in Support to the Strawberry



1. Old Farmers Practices in nursery management



Daughter Crowns



Pricking for rooting



2. Systematic Production of clean & quality planting materials

LGU

LA TRINIDAD

- IMPORTS planting materials
- EVALUATES & SELECT varieties
- COLLECT Runner TIPS



9/12/2014 11:28

MLGU - LA TRINIDAD



TISSUE CULTURE
LABORATORIES

PRODUCE EXPLANTS/
MOTHER PLANTS



3. Production , Distribution & Management of Quality Strawberry Mother plants

LGU LA
TRINIDAD



TISSUE CULTURE
LABORATORIES



NURSERIES (either
govt or farmers assoc)



Individual farmers/
members of FA/coops



Group Nursery



Municipal
Nursery



Individual farmers
nursery

Researches on the Effect of lighting in Nursery Management



With lighting (August to February at 4 hours per day , and average of 65 quality runners can be produced per mother plant

4. Research.....Effect of Chilled mother plants



- Early runner production and robust plants
- Average of 75 quality runners per mother plant



27/8/2014

5. Packaging and transport from Nurseries to farmers nurseries



Berry Production Practices

- Young strawberry farmers have been very receptive in trying various technologies employed in the farm to increase productivity.
- Open Field Production = November to May
- Off Season Production = July to November
- Elevated Strawberry Production = employed to maximize the area, ease in management , tourism purposes

Open Field Cultivation



Off Season Cultivation (non elevated)



Off season months: July to November

Area : 27 ha

Productivity = average of 12 to Mt/ha.

Average Price range per kilo fresh berries = PhP250 - PhP300

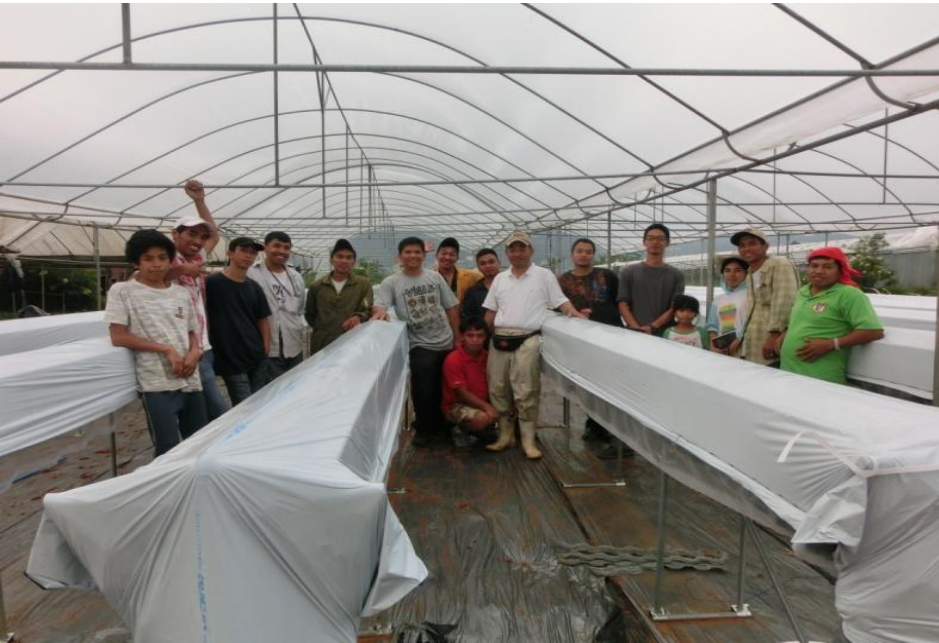
Off Season Production – elevated technology



Productivity = average of 15 tons /ha
Average Price per kilogram = PhP 400 /kg

Elevated Strawberry Production-Japan Technology

**3 farmer adopters – Japan ex
trainees**



Strawberry Farmer experts from Japan Extending Technical assistance to cooperators





Elevated
production
farmers
practices



TECHNOLOGY MAXIMIZING THE LIMITED AREA



Before planting



During harvest

Farmers
Practices to
maximize use
of limited
farm area



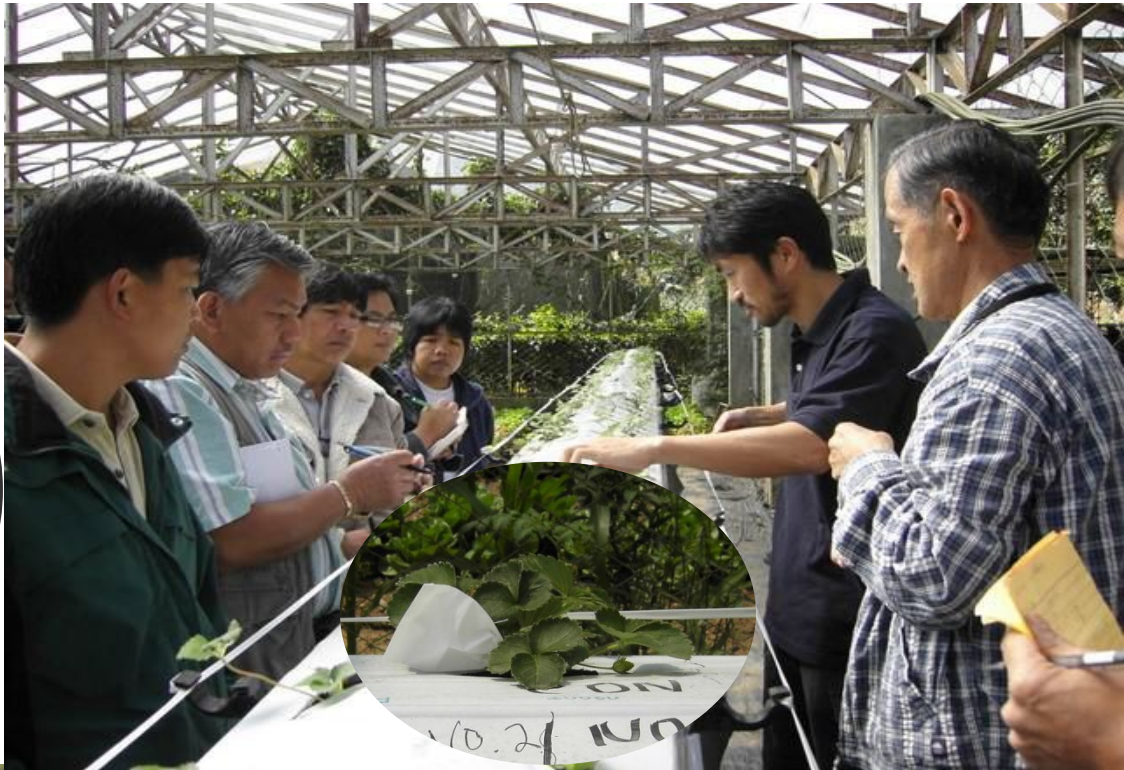
PRODUCTION COST WITHOUT TUNNEL HOUSE (1,750 Sqm)				
<i>Particulars</i>	Qty	Unit of Measure	Unit Cost PHP)	Total Cost (PHP)
<i>Labor:Land Preparation, planting, care and maintenance, harvesting</i>	1,015	Man days	300.00	305,500.00
<i>Strawberry Runners</i>	9800	Pieces	25.00	245,000.00
<i>Farm Inputs</i>				60,200.00
<i>Depreciation</i>				11,620.00
<i>Total Production Cost</i>				621,320.00
<i>Production Volume of 7 farms(kg)</i>				17,010.00
Cost per kilogram				PhP36.53

PRODUCTION COST WITH TUNNEL HOUSE (TH)

Particulars	Qty	Unit of Measure	Unit Cost (PHP)	Total Cost (PHP)
<i>Labor: Land Prep, Care and Maintenance , Harvesting</i>	1,897	Man Days	300.00	569,100
<i>Strawberry Runners</i>	19,600	Pieces	25.00	490,000.00
<i>Farm Inputs</i>				69,837.50
<i>Sand</i>	25	Cu.m	1,300.00	32,500.00
<i>Gravel</i>	25	Cu.m	1,300.00	32,500.00
<i>Depreciation (tools,equipment and TH)</i>				144,937.50
<i>Tunnel Type Mini Greenhouses</i>	63	unit		134,000.00
<i>Total Production Cost</i>				1,338,875.00
<i>Production Volume of 7 farms(kg)</i>				31,587.50
Cost per kilogram				PhP42.39

Cost and Return of Strawberry Production with/without Tunnel House (TH) in a 1,750sq.m.		
Particulars	WITHOUT TH	WITH TH
VOLUME (kgs/month)	3,150	3,325.00
CYCLE (Harvest Season)	6 months	10 months
LOSS(Post Harvest, pest and disease)	10%	5%
ANNUAL CROPPING PRODUCTION VOLUME (kgs)	17,010	31,587.50
COST PER KGS. Of Strawberry fresh:	36.53	42.39
SELLING PRICE	70	150
GROSS SALES FOR 7 FARMERS	1,190,700.00	4,738,125.00
ANNUAL COST OF PRODUCTION	621,320.00	1,338,875.00
NET INCOME (7 FARMERS)	556,780.00	3,399,250.00
NET INCOME/ FARMER (250 SQM.)	79,540.00	485,607.14

Breeding Strawberries



Cross-pollinating to create new all season varieties:

Sweet variety

Hard fruit type



Techno-demo – Bee Pollination for increased berry development

20 % increase in harvest with the presence of honey bees



Conduct of
Extension
services...
farm visits
and
monitoring



farmers classes



Establishment of Technology Demonstration Farms



Field Days

on Runner {roduction

FFS on Berry Production



Conduct of Technology Fair and Summit



Managing Pests and Diseases



Advocacy on Sustainable Pest Control

**Poinsettia as hosts to
beneficial mites against
Spider Mites**



**Sticky Yellow
Trap**

Biological Control With Predatory Mites

- In La Trinidad, the predatory mite named *Neoseiulus longispinosus*, which is locally available is recommended for rearing. This predatory mite is named for the long hairs on its back. To synchronize predatory mite production with spider mite appearances in January, you should begin your predatory mite colony in December. To find a start of predatory mites to begin your colony, search Poinsettia or Christmas plant and cassava. The plants should be infested with spider mites to have the best chance of also having predatory mites



Spider Mites

Live in group, move slow feed on leaf tissue



Predatory mites

Shiny skin, solitary fast movement to hunt prey



IPM on Strawberry

One on one with the Foreign Expert



Farmers class



Field Monitoring

by omag staff



.....releasing of Predatory mites



Sustainable Pest Management



Poinsettia as Side plants



Mokusaku spray



Comparison Between Biological Control and Pesticides

Treatment	Effect	Persistence	Cost	Fruit Quality	Risks
Biological Control	Slow	Long	Low	Improved	none
Pesticides	Quick	Short	Moderate to high	Some cause blemishes	Resistance development

Typhoons.....flooding,damaged rainshelters



THE FOOD INDUSTRY

- Production
- Manufacturing/processing
- Distribution
- Marketing



THE GOOD NEWS

The market for strawberry products is far from saturated with plenty of room for growth. La Trinidad is strategically located and with strawberry as its OTOP, and with the concerted efforts of all stakeholders, the growth of the strawberry industry is assured.



MARKETING AND TECHNICAL SUPPORT



IMPROVEMENTS AND INNOVATIONS IN TECHNOLOGY



THE FOOD INDUSTRY IS GROWING

- Creates employment
- Creates allied industries



Value Addition trainings on Strawberries



Wine
making



Distribution of processing supplies and equipment to strawberry processors from the LGU and partner agencies

Strawberry WINES



Monitoring and Assessment of Processing areas and products

Processed products and Processing areas



Skills
training
Strawberry
Cakes and
Pastries



Locally manufactured strawberry ice cream delights tourist...



Marketing Practices of Strawberries

As fresh berries



Marketed as Potted Strawberries





STRAWBERRY PRESERVES



STRAWBERRY CANDY



Feminine Strawberry Soap



Body Soap



Body Lotion
and Lip Balm

STRAWBERRY BODY PRODUCTS

EXISTING MARKETING AND DISTRIBUTION CHANNELS

✧ Strawberry Fields Marketing Center (BSU)



DTL BCT (1/22/10)



Promotion and Marketing Strategies



INSTITUTIONALIZED TRADE FAIRS

✕ National Trade Fair



✕ ADIVAY: Benguet Agro-Industrial Fair



DTI-BGT (4/22/10)

✕ OTOP Luzon Island Fair



Strawberry Industry Fostering Culture, Arts and Tradition



**Annual Celebration
of Strawberry
Festival
(Month long with
strawberry themed
activities)**



Float and street dancing



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Breakfast gathering at the Park



Search for the Biggest Strawberries



Strawberry Eating Contest



Floral Arrangement with Berries





Dining with Strawberry Wines



Farm Tourism



Strawberry Picking



Strawberry Picking

Strawberry
Fields
Forever

you living is our
easy with d
eyes closed
misunderstandings
fall u see
cause im goin
strawberry
2B someone
all works
it doesnt 2 me
crab
2.
now
17
can
one



La Trinidad, Benguet
"Largest Strawberry Cake
Guinness World Record Holder
March 20, 2004"



CERTIFICATE

The largest strawberry shortcake
 weighed 21,210.40 lbs (9,622.29 Kg)
 and was made by various bakers in
 conjunction with the Municipality of
 La Trinidad (Philippines)
 at the La Trinidad Strawberry
 Festival, Benguet, Philippines
 on 20 March 2004

Keeper of the Records
 GUINNESS WORLD RECORDS LTD

Signature

Rimay's — **Believe It or Not!/-**



WAS CREATED BY THE CITIZENS OF LA TRINIDAD, PHILIPPINES.
 THAT'S MORE THAN TWICE THE WEIGHT OF A HEAVY DUTY
 PICKUP TRUCK!

THE PHILIPPINE STAR July 2005

Actual Dimension:

No. of slices served: 42,082 slices

Weight: 9,622.29 kgs.

Length: 12.31 ft.

Height: 8.42 ft.

Width: 8.68 ft.

Thank you !

