Profitable Farming with Integrated Livestock

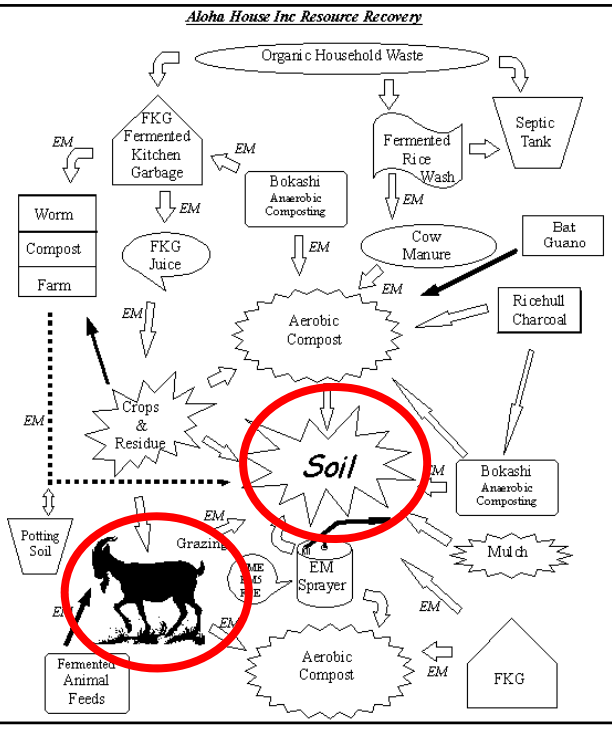
including
Resource
Recovery
Utilizing
EM

By Keith O.
Mikkelson
Executive Director
Aloha House Inc.
mik@mozcom.com
www.alohahouse.org

Sustainable Agriculture

Resource Recovery

Utilizing waste as an input for food production



Whey is dairy “waste”.

Sustainable Agriculture

Low Cost/
High Value
Food Production

Utilize Waste for
Food Production

Grow what you like to eat first, replace some of what you are buying the most of
- Spend 1 year with first livestock system
-Master 1 technology at a time
-Master 2 vegetables at a time

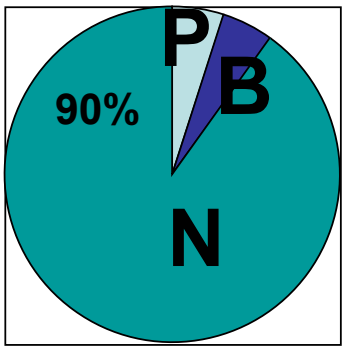
Total Microbial Balance

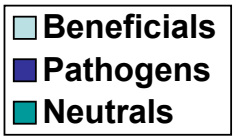
Pathogens-Destructive-Disease causing

- 5% of total population
- Will dominate with excess wastes

Beneficials

5% of total population
Will dominate when population increased





Abused Chemical System

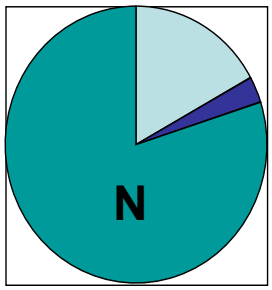
Pathogens

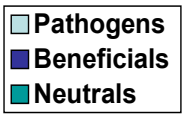
- Higher % of total population
- Dominant

Beneficials
Lower % of total population
Little effect

Results

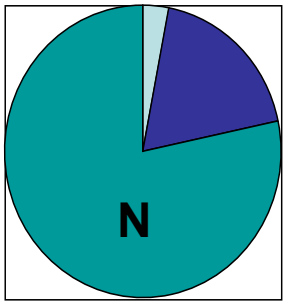
•Disease
•Infestations
•Poor nutritional end product
•Inefficiencies in resource utilizations
•Toxins are passed on to consumer
•Expensive chemicals to control symptoms



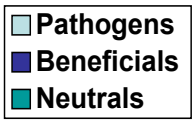


Healthy Sustainable System

Pathogens
- Lower % of total population
- Little effect



Beneficials
Higher % of total population
Dominant



Results
Low Disease
Minimal Insects
Excellent nutritional end product
No Toxins are passed on to consumer
Low input/Low cost

Sustainable Agriculture

Organic Farming, Natural Farming, Nature Farming

- Utilize farm and commercial waste for fertility

WITHOUT Ever using:
- Chemical Fertilizers
- Pesticides
- Fungicides
- Herbicides
- They are all suicides

Natural Farming Models

The Golden Rule
Feed the soil and it will feed the plants

Feeding the soil will feed the plant
Increase the Humus Content with:
Fermented Kitchen Waste
Rice Hull Charcoal
Green Fertilizers
Animal Waste
Composting
Mulching
Bokashi
EM

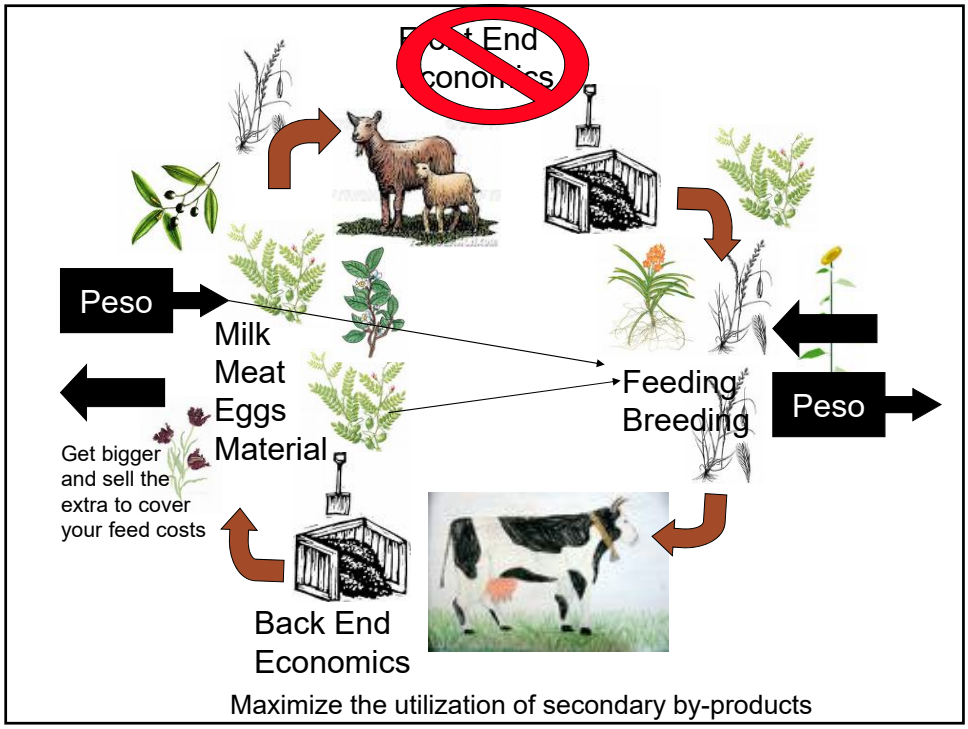
The Fundamentals
The 10 Commandments of Sustainable Agriculture

The 10 Fundamentals

- Crop Rotation
- Legume Usage
- Companion Planting
- Composting
- Green Fertilizers
- Mulching
- Cover Cropping
- Minimal Tillage
- Insect Habitat

Integrated Livestock


Aloha Livestock


Front End
Economics
Peso
Milk
Meat
Eggs
Material
Feeding
Breeding
Peso
Get bigger and sell the extra to cover your feed costs
Back End
Economics
Maximize the utilization of secondary by-products

	Young Vetiver	Mature Vetiver	Old Vetiver
Energy [kcal/kg]	522	706	969
Digestibility [%]	51	50	-
Protein [%]	13.1	7.93	6.66
Fat [%]	3.05	1.30	1.40


Manure scoop at feedlot
Aloha Livestock

Small Piggeries

- Won't make you rich
- Will earn for your family

It is less work than some livelihoods but requires proper management because of the high risk

Sustainable Concepts

Start small and grow into it

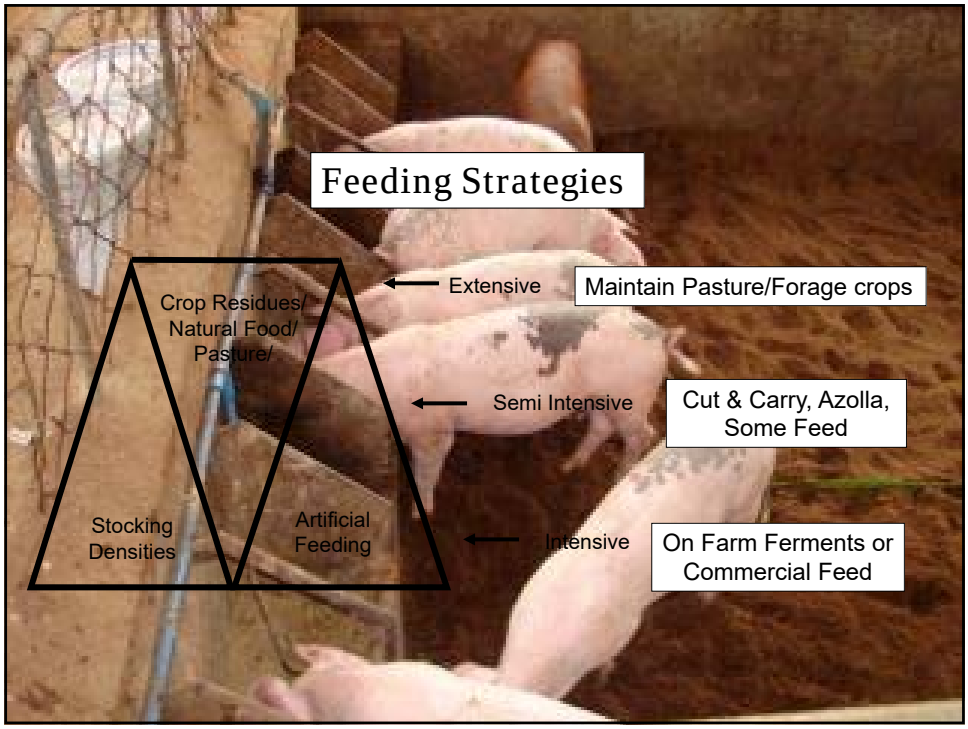
Develop your project with the confidence that God wants you

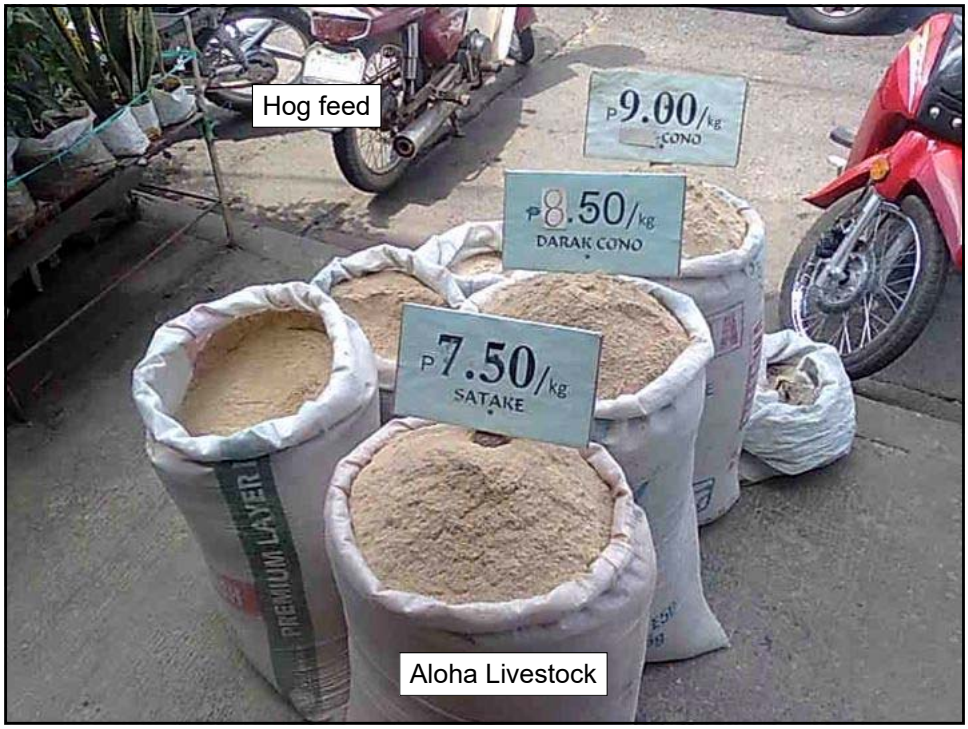
- to grow through the failures
- and thank Him for the successes

Feed - Grain Terms

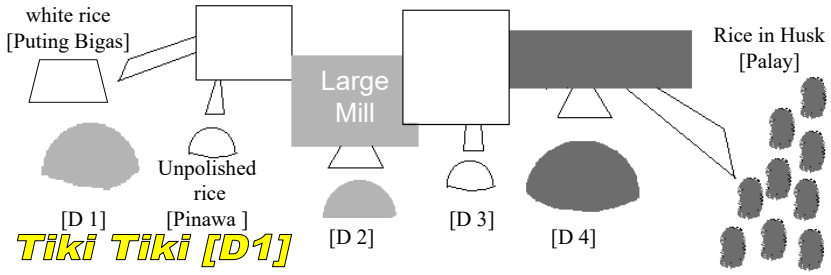
Grade	Name	Filipino	Waste Source	Carbon/Nitrogen
[D1]	Rice Hull	Ipa, Labhang	From Dehusking	high - carbon
[D3]	Crushed Rice Hull	Magaspang	from beltway	high carbon/ some nitrogen
[D2]	Rice Bran	Darak	from cleaning	some carbon/ some nitrogen
[D1]	Rice Bran	Tiki Tiki	from polishing	high protein-nitrogen

D1


Feeding Strategies
Crop Residues/
Natural Food/
Pasture/
Stocking
Densities
Artificial
Feeding
Extensive
Maintain Pasture/Forage crops
Semi Intensive
Cut & Carry, Azolla,
Some Feed
Intensive
On Farm Ferments or
Commercial Feed


Hog feed
₱9.00/kg
CONO
₱8.50/kg
DARAK CONO
₱7.50/kg
SATAKE
PREMIUM LAYER
Aloha Livestock

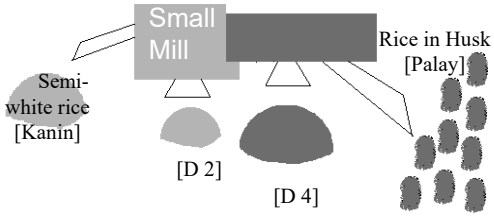
Feed-Grain Selection



Tiki Tiki [D1] is the best

Small Mill Remedy

[D 2] is inferior to [D1] but can be supplemented with more fish meal




Hog feed
Aloha Livestock


Hog feed
Aloha Livestock


Hog feed
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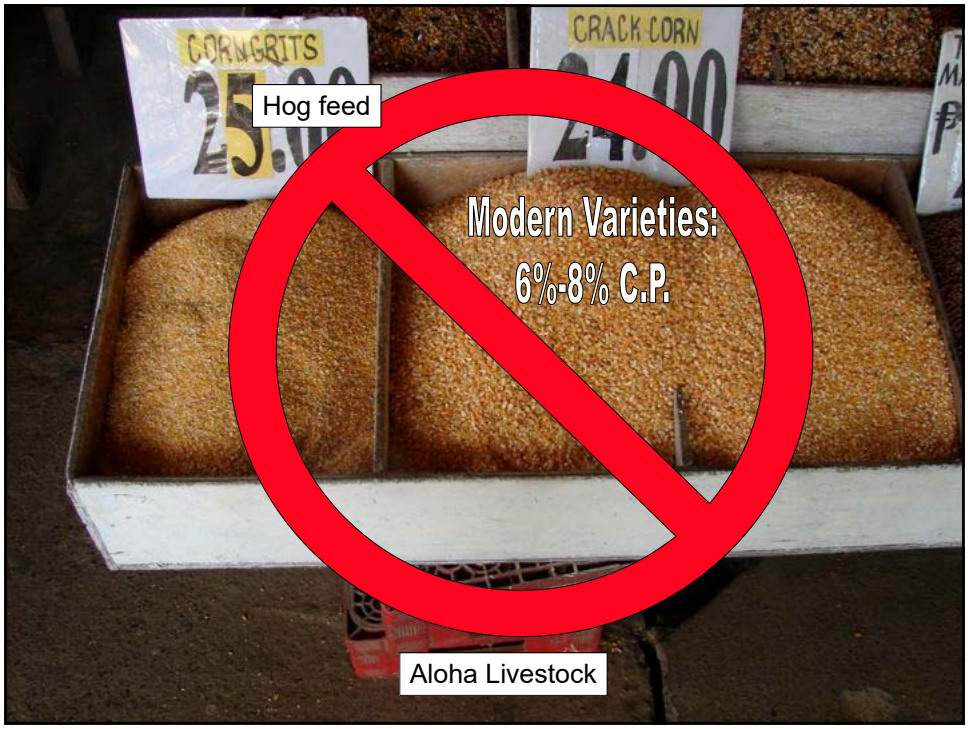
Hog feed
Aloha Livestock


Hog feed
25.00
Aloha Livestock


CORN GRITS
CRACK CORN
Hog feed
Modern Varieties:
6%-8% C.P.
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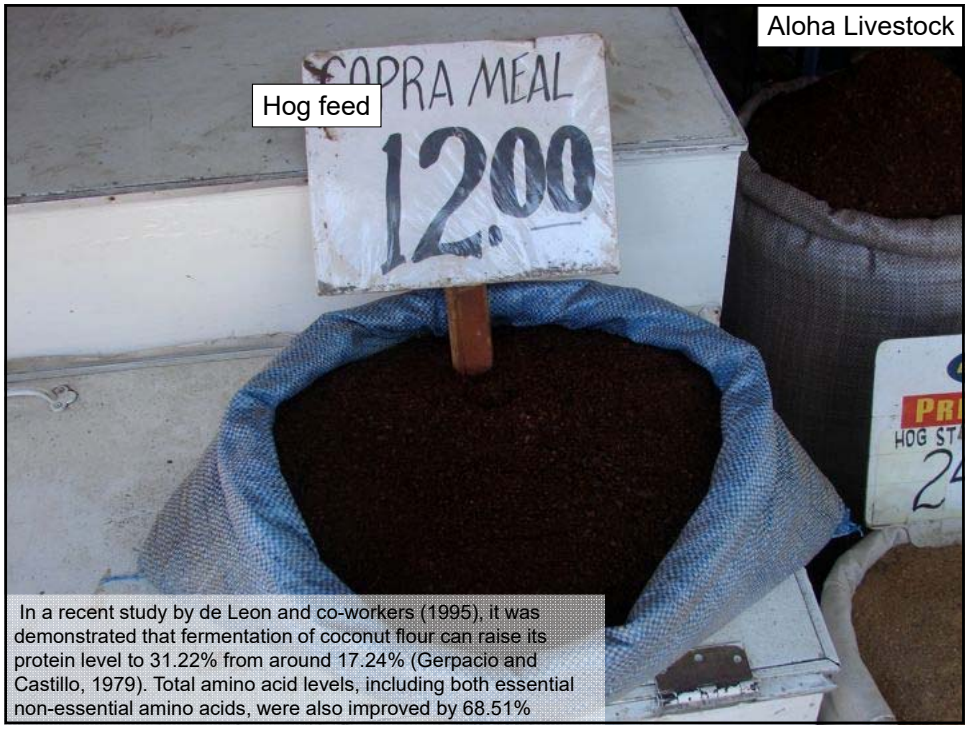
Aloha Livestock
Hog feed
COPRA MEAL
12.00
In a recent study by de Leon and co-workers (1995), it was demonstrated that fermentation of coconut flour can raise its protein level to 31.22% from around 17.24% (Gerpacio and Castillo, 1979). Total amino acid levels, including both essential non-essential amino acids, were also improved by 68.51%


Hog feed
CONO
12.00
SEMI CONO
11.00
Aloha Livestock

Page 18

Feed-EM Mix

EM helps in livestock!

1. Boosts stomach flora
2. Prevents worms
3. Probiotic
4. Increases digestible protein
5. Minimizes odors
6. Increases fertilizer value
7. Prevents ammonium build up

Pig Protein - Soy w/ legumes

	Crude Protein	Cost P/ 50K sack	Cost P/ Kilo
B Meg Starter	18.00%	1,100.00	22.00
Fermented EM Feed	18.25%	537.29	10.75

Formula

	Crude Protein	Weight (K)	Cost P/Kilo	CP Units	COST (Pesos)
Tiki Tiki	14.00%	50.00	9.00	7.00	450.00
Copra Meal	22.00%	8.00	9.00	1.76	72.00
Soy Meal	47.00%	11.00	31.00	5.17	341.00
Gulay	7.00%	11.00	0.00	0.77	0.00
Livestock Lime	0.0%	0.10	8.00	0.00	0.80
Rock Dust Minerals	0.0%	0.02	2.00	0.00	0.04
Charcoal-fine	0.0%	0.24	1.00	0.00	0.24
EM & Molases (each 100ml/10 Liters)		0.20	8.00	--	1.60
		80.56		14.70	865.68

SOY INFANT FORMULA - BIRTH CONTROL PILLS FOR BABIES

Babies fed soy-based formula have 13,000 to 22,000 times more estrogen compounds in their blood than babies fed milk-based formula. Infants exclusively fed soy formula receive the estrogenic equivalent of at least five birth control pills per day.

Male infants undergo a "testosterone surge" during the first few months of life, when testosterone levels may be as high as those of an adult male. During this period, baby boys are programmed to express male characteristics after puberty, not only in the development of their sexual organs and other masculine physical traits, but also in setting patterns in the brain characteristic of male behavior.

In animals, studies indicate that phytoestrogens in soy are powerful endocrine disrupters. Soy infant feeding—which floods the bloodstream with female hormones that inhibit testosterone—cannot be ignored as a possible cause of disrupted development patterns in boys, including learning disabilities and attention deficit disorder. Male children exposed to DES, a synthetic estrogen, had testes smaller than normal on maturation and infant marmoset monkeys fed soy isoflavones had a reduction in testosterone levels up to 70 percent compared to milk-fed controls.

Almost 15 percent of white girls and 50 percent of African-American girls show signs of puberty, such as breast development and pubic hair, before the age of eight. Some girls are showing sexual development before the age of three. Premature development of girls has been linked to the use of soy formula and exposure to environmental estrogen-mimickers such as PCBs and DDE.

Intake of phytoestrogens even at moderate levels during pregnancy can have adverse affects on the developing fetus and the timing of puberty later in life.

SOY DANGERS SUMMARIZED

High levels of phytic acid in soy reduce assimilation of calcium, magnesium, copper, iron and zinc. Phytic acid in soy is not neutralized by ordinary preparation methods such as soaking, sprouting and long, slow cooking. High phytate diets have caused growth problems in children.

Trypsin inhibitors in soy interfere with protein digestion and may cause pancreatic disorders. In test animals soy containing trypsin inhibitors caused stunted growth.

Soy phytoestrogens disrupt endocrine function and have the potential to cause infertility and to promote breast cancer in adult women.

Soy phytoestrogens are potent antithyroid agents that cause hypothyroidism and may cause thyroid cancer. In infants, consumption of soy formula has been linked to autoimmune thyroid disease.

Vitamin B_{12} analogs in soy are not absorbed and actually increase the body's requirement for B_{12}.

Soy foods increase the body's requirement for vitamin D. Toxic synthetic vitamin D_2 is added to soy milk.

Fragile proteins are over-denatured during high temperature processing to make soy protein isolate and textured vegetable protein.

Processing of soy protein results in the formation of toxic lysinoalanine and highly carcinogenic nitrosamines.

Free glutamic acid or MSG, a potent neurotoxin, is formed during soy food processing and additional amounts are added to many soy foods to mask soy's unpleasant taste.

Soy foods contain high levels of aluminum, which is toxic to the nervous system and the kidneys.

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Soy Alert!

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IN FOOD, FARMING AND THE HEALING ARTS
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info@westonaprice.org
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1. High levels of phytic acid in soy reduce assimilation of calcium, magnesium, copper, iron and zinc. Phytic acid in soy is not neutralized by ordinary preparation methods such as soaking, sprouting and long, slow cooking. High phytate diets have caused growth problems in children.
2. Trypsin inhibitors in soy interfere with protein digestion and may cause pancreatic disorders. In test animals soy containing trypsin inhibitors caused stunted growth.
3. Soy phytoestrogens disrupt endocrine function and have the potential to cause infertility and to promote breast cancer in adult women.
4. Soy phytoestrogens are potent antithyroid agents that cause hypothyroidism and may cause thyroid cancer. In infants, consumption of soy formula has been linked to autoimmune thyroid disease.
5. Vitamin B_{12} analogs in soy are not absorbed and actually increase the body's requirement for B_{12}.

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Feed-EM Mix

Fish Meal

EM helps in livestock!

1. Boosts stomach flora
2. Prevents worms
3. Probiotic
4. Increases digestible protein
5. Minimizes odors
6. Increases fertilizer value
7. Prevents ammonium build up

Pig Protein - Some FAA w/ Fish Meal Low CP Gulay

	Crude Protein	Cost P/ 50K sack	Cost P/ Kilo
B Meg Starter	18.00%	1,100.00	22.00
Fermented EM Feed	17.99%	487.83	9.76

Formula

	Crude Protein	Weight (K)	Cost P/Kilo	CP Units	COST (Pesos)
Tiki Tiki	14.00%	50.00	9.00	7.00	450.00
Copra Meal	22.00%	7.00	9.00	1.54	63.00
Fish Meal	47.00%	9.00	20.00	4.23	180.00
Gulay	7.00%	4.00	0.00	0.28	0.00
Livestock Lime	0.0%	0.10	8.00	0.00	0.80
Rock Dust Minerals	0.0%	0.02	2.00	0.00	0.04
Charcoal - fine	0.0%	0.21	1.00	0.00	0.21
Fish Sliage (FAA)	33.0%	2.00	6.00	0.66	12.00
EM & Molases (each 100ml/10 Liters)		0.20	8.00	--	1.60
		72.53		13.05	707.65

Feed-EM Mix

FAA
Walang Fish Meal

EM helps in livestock!

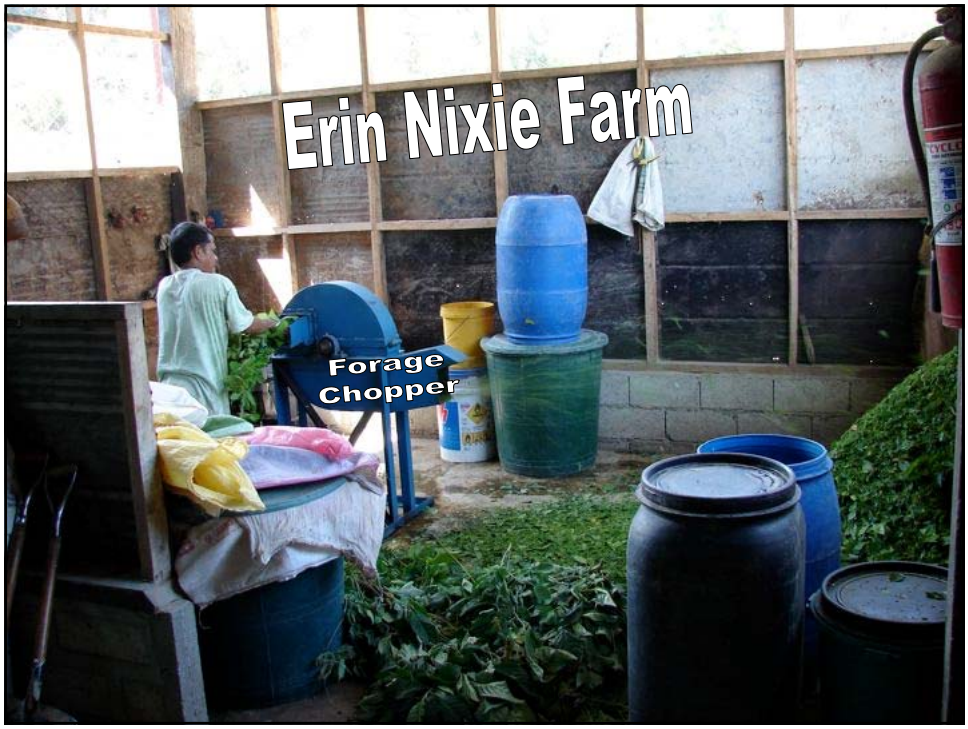
1. Boosts stomach flora
2. Prevents worms
3. Probiotic
4. Increases digestible protein
5. Minimizes odors
6. Increases fertilizer value
7. Prevents ammonium build up

Pig Protein - FAA no Fish Meal - Low CP Gulay

	Crude Protein	Cost P/ 50K sack	Cost P/ Kilo
B Meg Starter	18.00%	1,100.00	22.00
Fermented EM Feed	18.00%	395.81	7.92

Formula	Crude Protein	Weight (K)	Cost P/Kilo	CP Units	COST (Pesos)
Tiki Tiki	14.00%	50.00	9.00	7.00	450.00
Copra Meal	22.00%	7.00	9.00	1.54	63.00
Fish Meal	47.00%	0.00	20.00	0.00	0.00
Gulay	7.00%	4.00	0.00	0.28	0.00
Livestock Lime	0.0%	0.10	8.00	0.00	0.80
Rock Dust Minerals	0.0%	0.02	2.00	0.00	0.04
Charcoal - fine	0.0%	0.18	1.00	0.00	0.18
Fish Sliage (FAA)	33.0%	15.00	6.00	4.95	90.00
EM & Molases (each 100ml/10 Liters)		0.20	8.00	--	1.60
		76.50		13.77	605.62


Hog feed
Aloha Livestock


Erin Nixie Farm
Forage
Chopper


Erin Nixie Farm
Fermented
Feed Drums


Fermented
Feed Drums
Fermented
Feed Drums
Fermented
Feed Drums
Fermented
Feed Drums


Erin Nixie Farm
Fermented
Feed Drums


Erin Nixie Farm

Hog feed

Feed-EM Hog Fattening

Vegetative Feed
The following have been used successfully at Aloha House.
Depending on crop residues will lower feed costs.

Fermenting Greens- Legumes are best, Peanut tops, Kakawati, Ipil Ipil, Flamengia, Rinzoni, Kudzu
no Sitao [bawal], no Cassava leaves (dahon bawal)

Snacking Greens- Komote, Kang Kong, Coco leaves, Grasses, clover, Alugbati, Carrot tops, Maize stalks, Peanut tops
no Sitao [bawal], no Cassava leaves (bawal ang dahon)

Snacking Fruits and Vegetables – Tomato, Cucumber, banana, watermelon, papaya, upo chopped

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Hog feed
-- Crop Residue --
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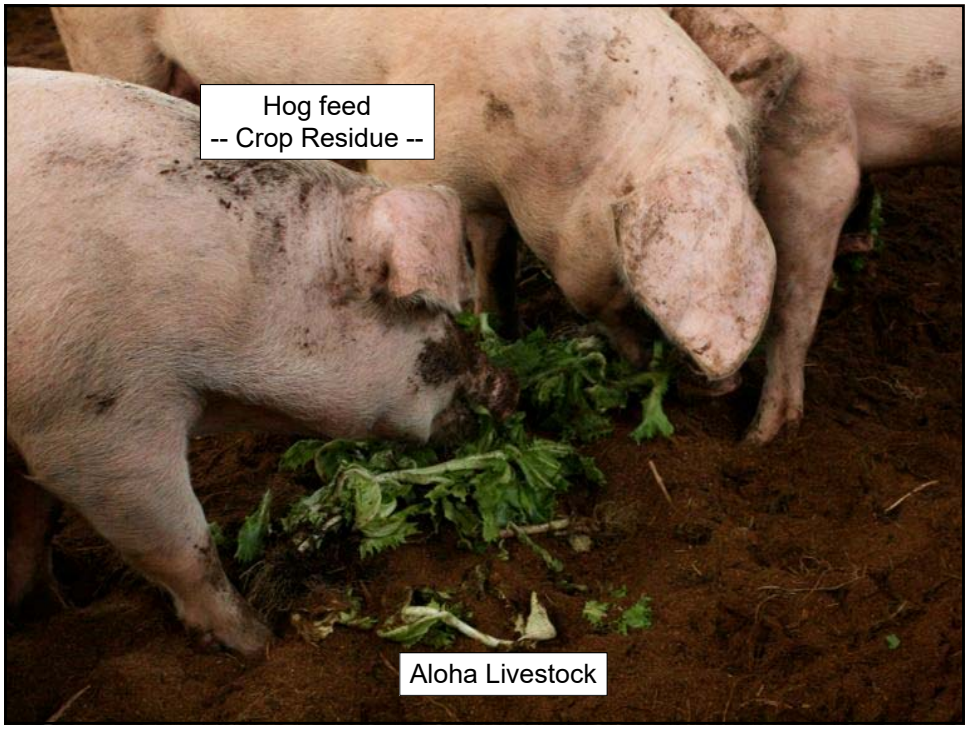
Hog feed
-- Crop Residue --
Aloha Livestock

Feeding for Developmental Stages

Period	EM Fermented Feed	Crop Residue Cut and Carry	Daily Amount Of EM Feed
0 to 45 days [To weaning]	Pre Starter	None	Ad Lib [continual till 5 pm]
46 days to 18 Kilos	Starter	12:00 noon	Ad Lib [continual till 5 pm]
18-50 Kilos	Grower	3 x daily	1-2+ Kilos EM Feed
50+ Kilos	Finisher	Ad Lib	1 Kilo
Sow	Maintenance	3x	2-3 Kilo
Sow	Pregnant	Ad lib	3 Kilo
Sow	Lactating	Ad lib	3 Kilo + ½ kilo/piglet

Transition Feeding

L.B.M. Zone

Period	EM Feed	Commercial Feed
day 1-5	0%	100%
day 6-10	25%	75%
day 11-15	50%	50%
day 16-20	75%	25%
day 21 onward	100%	0%

Hog Housing

Bedding of the Pig Pen

Materials Description:

Sawdust -preferably the coarse rather than the fine dust, but a mix will work fine
- in warm area, preferably coconut sawdust to make the bedding cool
- in cold area, preferably forest sawdust to make the bedding warm

Rice Hull Charcoal - Carbonized (Uling) not ash [any ground charcoal works]
No raw rice hull (hindi ipa)

Soil Preferably sandy loam or garden soil but clay soil is ok

Salt Rock salt or sea salt

Sawdust	=	10 Sacks
Sandy Loam	=	2 Sacks
Or Clay Soil	=	1 Sack
Charcoal	=	1 Sack
Salt	=	½ kilo

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Hog Housing
EM can not
control the pathogen load
on modern breads
durring rainy season
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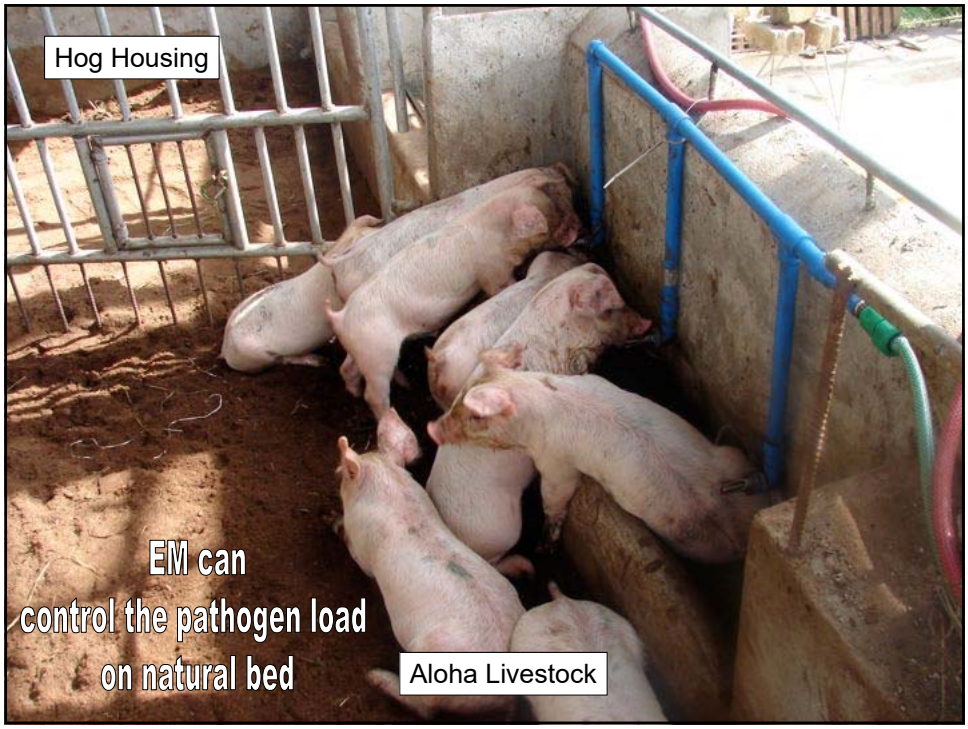
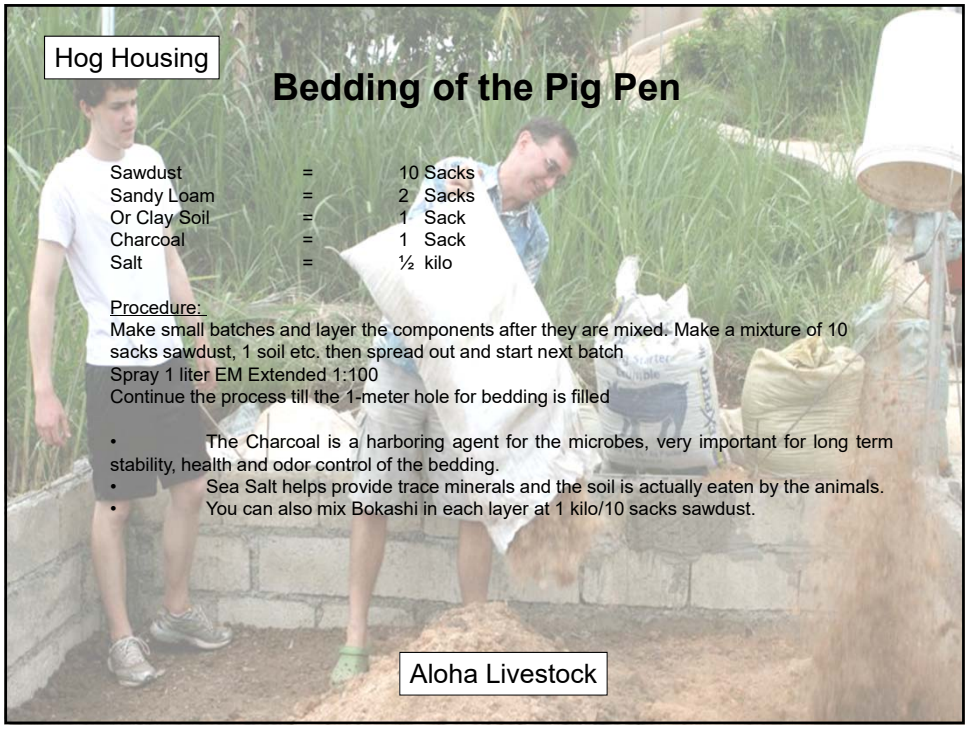
Hog Housing
"no wash" hogs
Aloha Livestock


Hog Housing
EM can
control the pathogen load
on natural bed
Aloha Livestock


Hog Housing
Happy Sow
8 year old bedding
Aloha Livestock


Hog Housing
Bedding of the Pig Pen
Sawdust = 10 Sacks
Sandy Loam = 2 Sacks
Or Clay Soil = 1 Sack
Charcoal = 1 Sack
Salt = ½ kilo
Procedure:
Make small batches and layer the components after they are mixed. Make a mixture of 10 sacks sawdust, 1 soil etc. then spread out and start next batch
Spray 1 liter EM Extended 1:100
Continue the process till the 1-meter hole for bedding is filled
• The Charcoal is a harboring agent for the microbes, very important for long term stability, health and odor control of the bedding.
• Sea Salt helps provide trace minerals and the soil is actually eaten by the animals.
• You can also mix Bokashi in each layer at 1 kilo/10 sacks sawdust.
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Hog Housing
Aloha Livestock


Hog Housing
Aloha Livestock

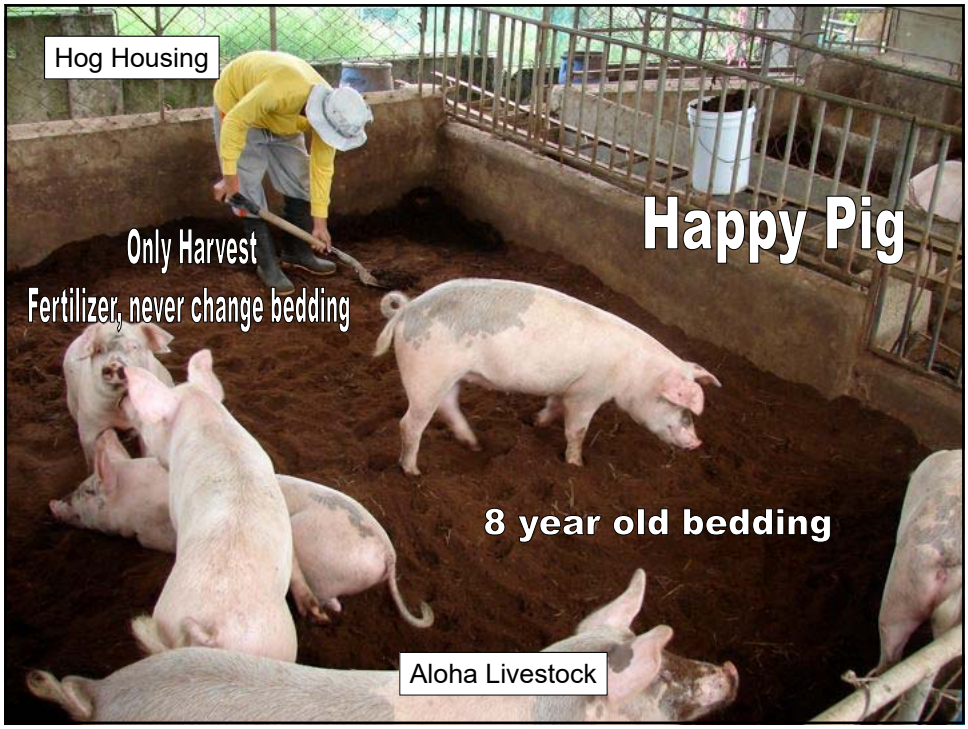

Hog Housing
Aloha Livestock


Hog Housing
Layering
Aloha Livestock


Hog Housing
Aloha Livestock

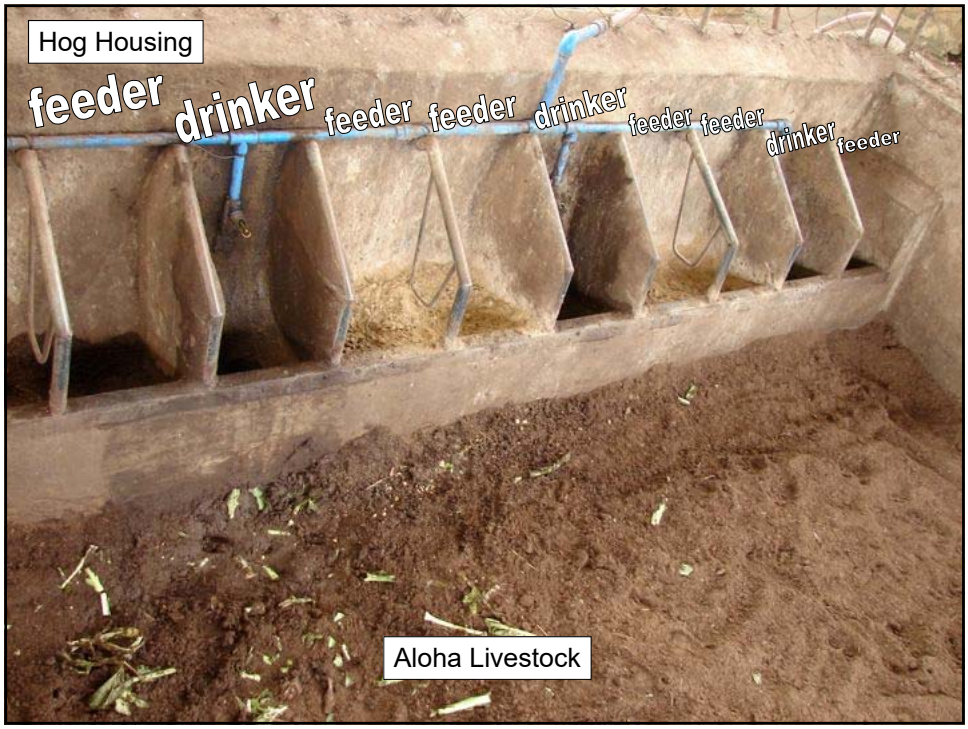

Hog Housing
Aloha Livestock

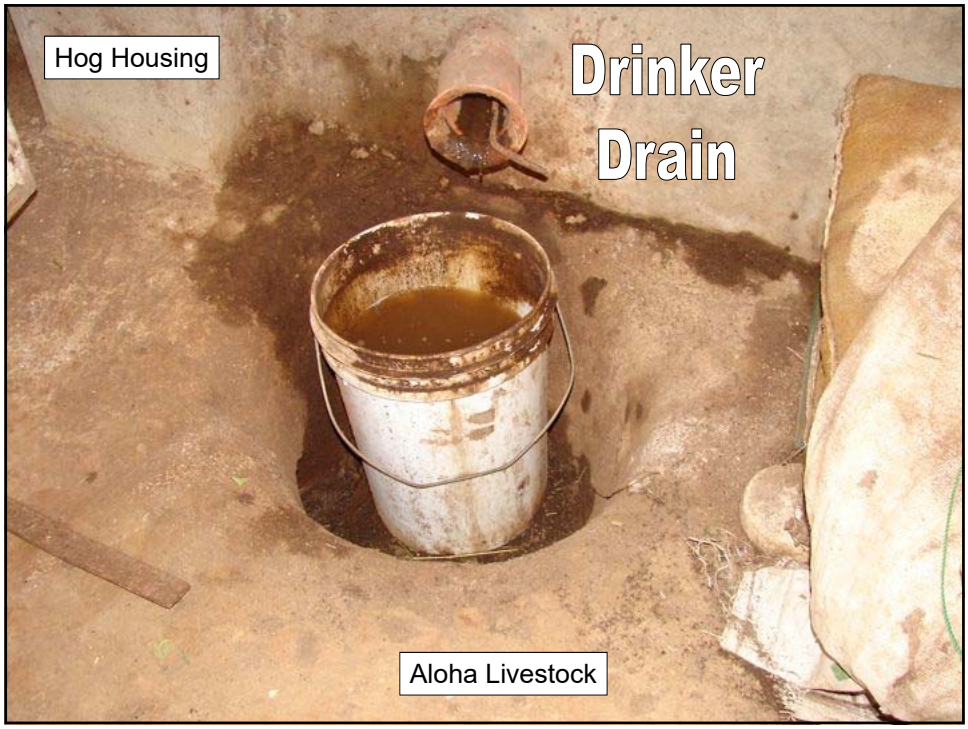

Hog Housing
Aloha Livestock


Hog Housing
Happy Pig
Only Harvest
Fertilizer, never change bedding
8 year old bedding
Aloha Livestock


Hog Housing
Aloha Livestock
EM Fermented Manures

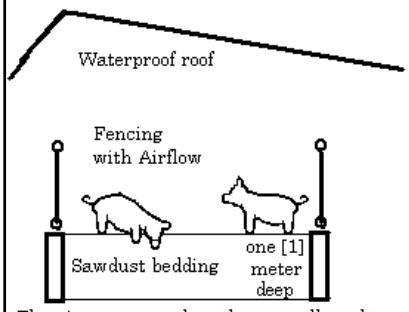

Hog Housing
Cleaned by Chicken
EM Fermented Manures
Aloha Livestock


Hog Housing
feeder
drinker
feeder
feeder
drinker
feeder
feeder
drinker
feeder
Aloha Livestock

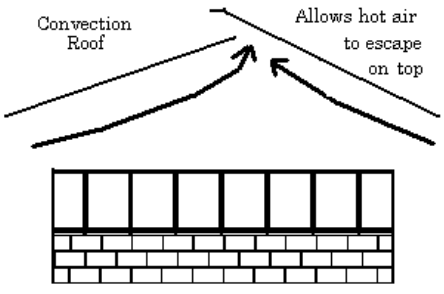


Housing-EM Hog Fattening

- Make the roof leak proof with good airflow below. Bedding can not get wet. You must not build over low areas where water will leach into the bedding. The bedding is 1 meter deep and lined with hollow block to prevent the pigs from digging under fencing.

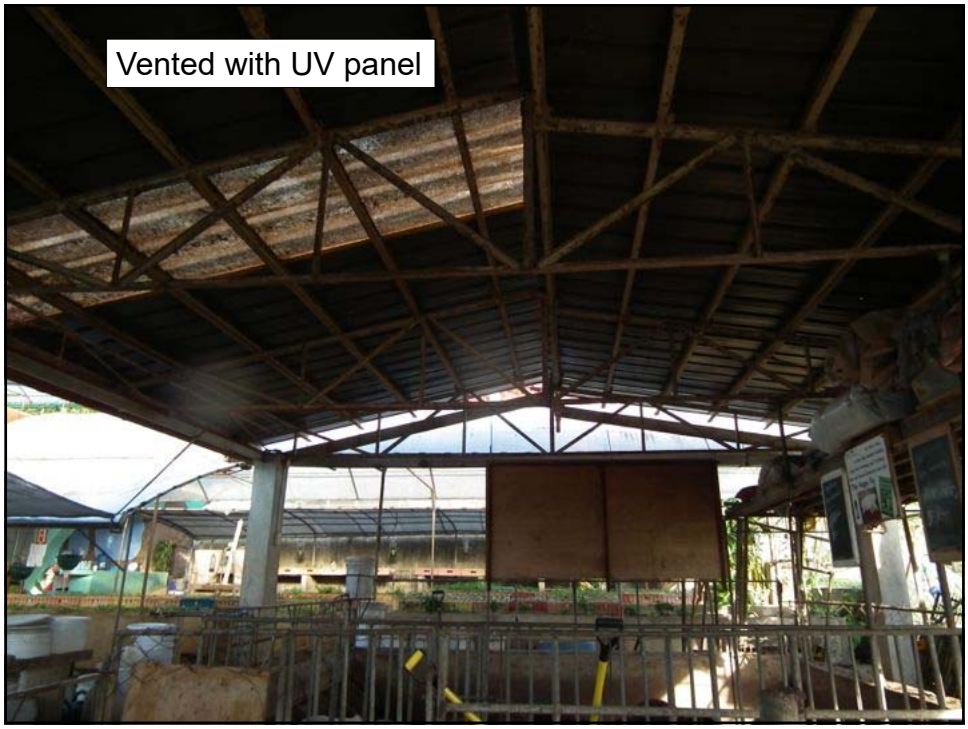


The pigs prosper when they are allowed to follow their instincts of rooting and digging.



Build above ground if drainage is a problem, the bedding can not get wet or the microbes die!

Either roof design works as long as rain does not enter. They need help staying cool and we no longer spray them or wash them with water. EME is sprayed weekly to control odors. Also water is treated with EME 1:1000 and feed is fermented with EM. TWO [2] SQUARE METERS ARE REQUIRED PER PIG FOR FATTENING, OVER CROWDING DOES NOT WORK. Average weight is lower and it causes disease .


Vented with UV panel

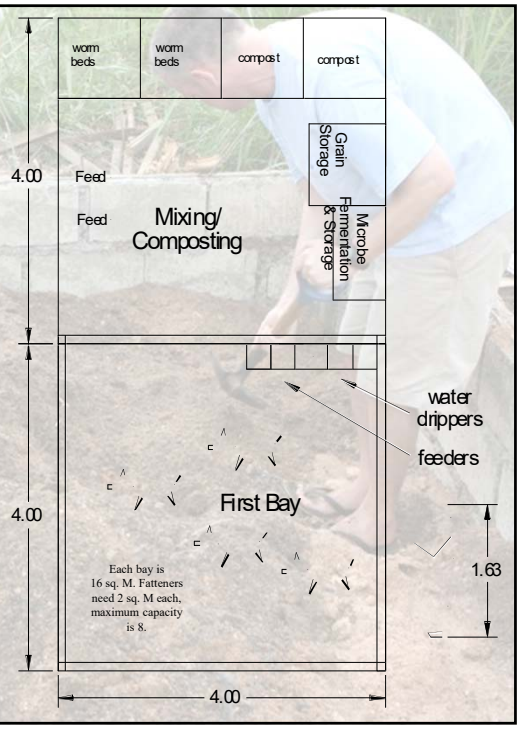

Vented with UV panel

TWO [2] SQUARE METERS ARE REQUIRED PER HOG FOR FATTENING, OVER CROWDING DOES NOT WORK

Housing-EM Hogs

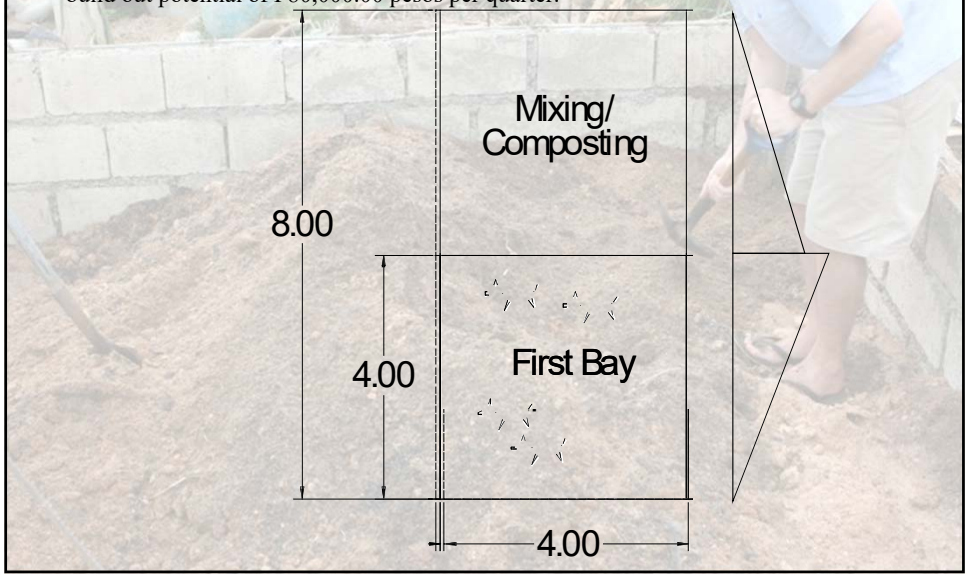
- First round fatten only 4 hogs, start small and gain expertise. Vegetable production will sustain family, fatteners will supplement income sporadically. As manure increases, fertilizer will be sufficient for a family of four to six, plus some surplus for sale.

The manure from 4 months of production for 8 pigs can average 6 cubic meters. That is 300 pales [20 Liters]. Example: Eight fatteners can produce enough fertilizer for 10,000 sq. Meters of watermelon. That soil can then produce 1200 pcs organic watermelon averaging 4 kilos each. Off season we can fetch 20 pesos/kg. That is P50,000.00 gross income from pig manure!



Housing-EM Hog Fattening

As success is achieved, expansion can be done in modules. Each bay can fatten 8 hogs and bring a net profit of P1,000.00-2,000.00 with a five bay build out potential of P80,000.00 pesos per quarter.



Housing-EM Hog Fattening

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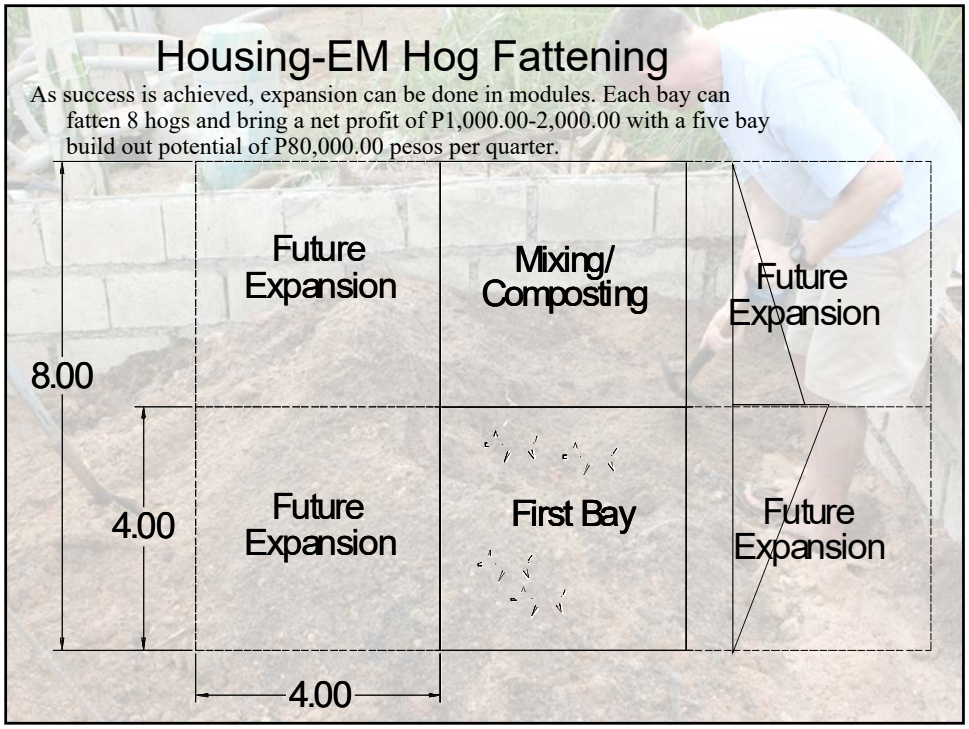
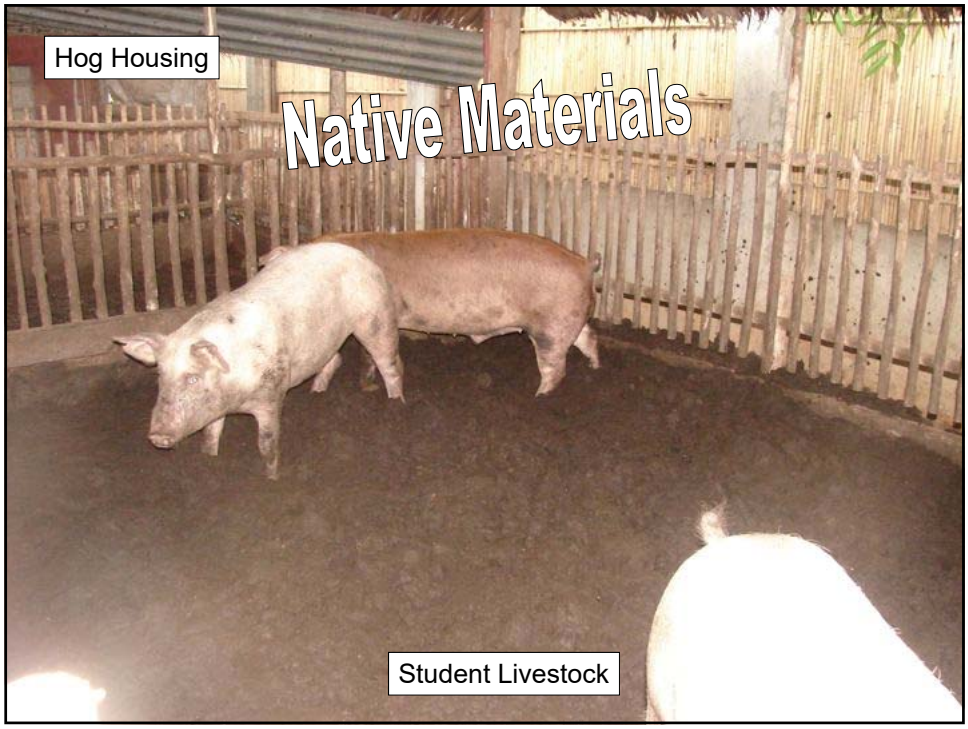



Hog Housing
Native Materials
Student Livestock


Door of Hope Orphanage

Breeds-EM Hog Fattening

- Good genetics is more important than good breeds
- Land raise
- Large white
- Landraise/LargeWhite (hybrid vigor)
- Durok males (females-poor furrowing sows)
- Look for professional growers
- Avoid pointy nosed native blood

Problems - EM Hog Fattening

- Pig Problems
  - Never feed sitao, it is toxic to pigs
  - Use ipil ipil sparingly - kunti kunti -skin/hair loss
  - Ipa/labhang (rice hull) is not best in the bedding
  - Coco lumber sawdust is best
  - Gemelina sawdust is toxic to pigs
  - Bad odor is from wet bedding or bad feed. Do not feed with kitchen/ restaurant food.
  - Do not feed your livestock with darak, use only Tiki Tiki.
  - Fish meal and copra meal are high protein.
  - 10% copra meal is the maximum in feed, more will cause LBM (diarrhea).

Problems - EM Hog Fattening

Problema	Possible Cause	Solution
Foul Odor	Bad feed	Mix with out kitchen waste, use soy meal not fish meal
	Wet bedding	Dripper drainage, roof leaks, house in low area, flood area
	No beneficial microbes	Use EME in bedding, feed and water
Rashes on Pigs	Sitao in feed	Quit feeding sitao, try other legumes
	Too much kakawati, Ipil 2	Quit feeding kakawati, Ipil Ipil
	Rice hull (ipa) in bedding	Use sawdust lang
	Mites	Isolate, coat with oil / aloe vera
Slow Growth	Bad genetics	Get professionally bred hogs
	Bad feed mix	Use high protein feed stock and gulay
	Stress	Over crowding, give 2 sq. M each pig
Diarrhea	Bad feed	Ferment with EME one week, 10% copra meal only
	Too much soil/shallow	Remove soil - Add sawdust
Flies	Wet bedding	Dripper drainage, roof leaks, house in low area, flood area
	Bad feed	Mix with out kitchen waste, use soy meal not fish meal
	No beneficial microbes	Use EME in bedding, feed and water

After much clinical research, experts have now identified the top four leading causes of premature death…


After much clinical research, experts have now identified the top four leading causes of premature death…
Happy Birthday Jimboy
1. Birthdays
2. Weddings
3. Graduation
4. Fiesta


1. Birthdays
2. Weddings
3. Graduation
4. Fiesta


Marketing - EM Hog Fattening
• NCCC/Grocery/ Market etc.
• Direct Sell
• Group Growing
Fill larger orders
For export-Manila then Japan

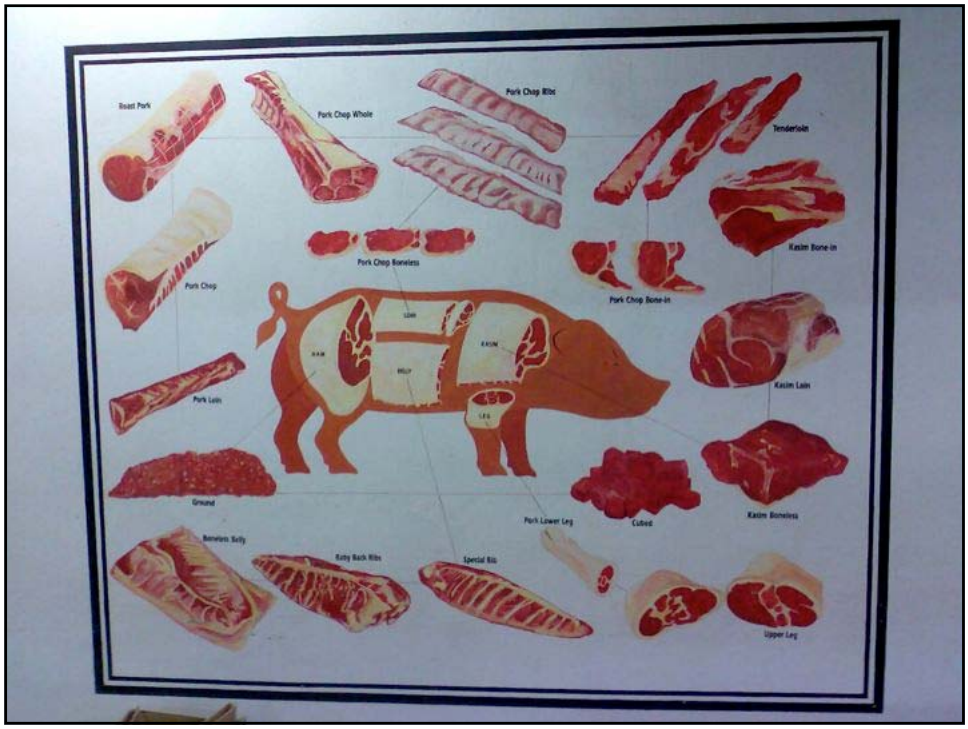

Marketing - EM Hog Fattening
• NCCC/ Grocery / Hotels
• Market etc.
• (minimums)

Marketing - EM Hog Fattening

- Direct Sell

Pre-sell through Text SMS Messaging

Add on products



Marketing - EM Hog Fattening

- NCCC/ Market etc.
  (minimums)
- Direct Sell
  (value added products)

Cost Study- EM Hog Fattening

				Total Feed Cost		1,433.27 P
				Delivery costs		167.00 P
				Piglet Cost		2,500.00 P
					TOTAL COST	**4,100 P**
SALE PRICE		Break	**Profit = SALE PRICE - TOTAL COST**			
		Even Weight	KGS 70.00	KGS 80.00	KGS 90.00	KGS 100.00
75	P/Kilo	53 K	1,267 P	2,016.73	2,766.73	3,516.73
80.00	P/Kilo	49.8	1,6[illegible].73	2,416.73	3,216.73	4,016.73
85.00	P/Kilo	46.9	1,966.73	2,816.73	3,666.73	4,516.73
90	P/Kilo	44.3	2,316.73	3,216.73	4,116.73	5,017 P

A Case Study – Natural Pork

- 16 Hogs - Fatteners
- Cover 2 farmers salary
- Spend ½ hour per day

Feeding, caring (no washing)

- 3 hours per week (mixing feed)

= 13 man hours per day for cash crops – gulay not palay

A Case Study – Natural Pork

- If 16 Hogs works then would 160 work better?
- So just add a zero, move a decimal point, multiply for projections, right?
- WRONG

Nothing is sustainable without careful growth through skilled hands on management.

Why do you think the Chinese live over their work and never take a vacation?

Hog Log

Hog Log

Hog Log

Found good supplier

Hog Log

At 70 Kilos
Fermented feed=1kilo
Crop residue=2-3kilos


Hog Log
At 100 Kilos
Fermented feed = 1-2 kilo
Crop residue = 3-8 kilos

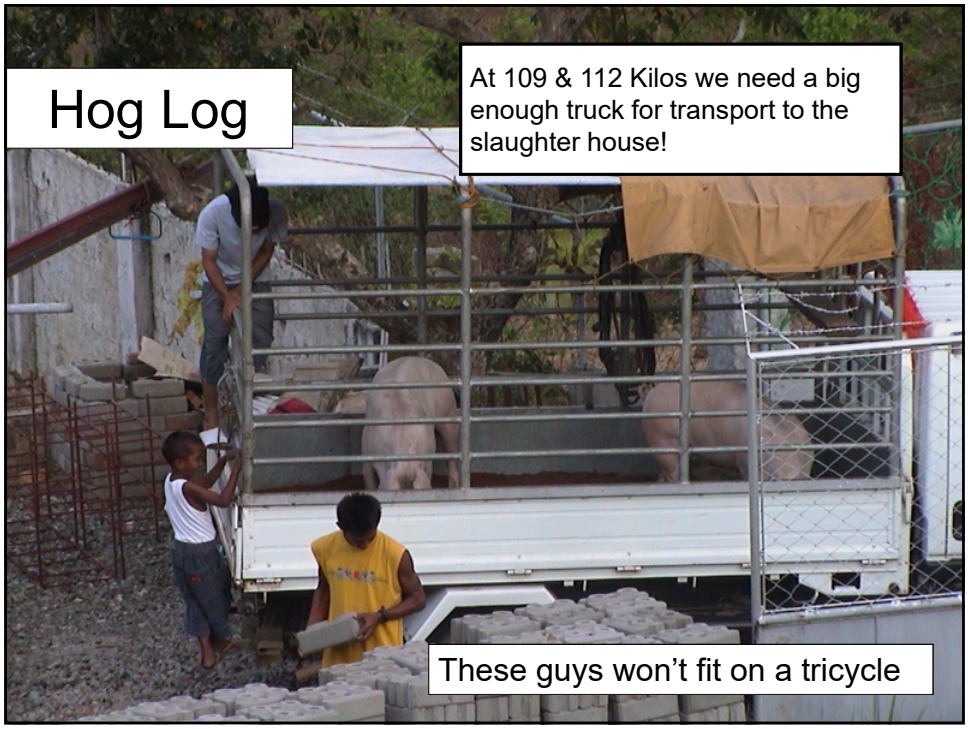

Hog Log
At 112 Kilos
Our only problem is getting a big enough truck to transport

Hog Log

Butcher brings slaughtered animals in the morning

Hog Log

These guys won't fit on a tricycle


Hog Log
At 109 & 112 Kilos we need a big enough truck for transport to the slaughter house!
These guys won't fit on a tricycle


Hog Log
These guys won't fit on a tricycle

Hog Log

These guys won't fit on a tricycle

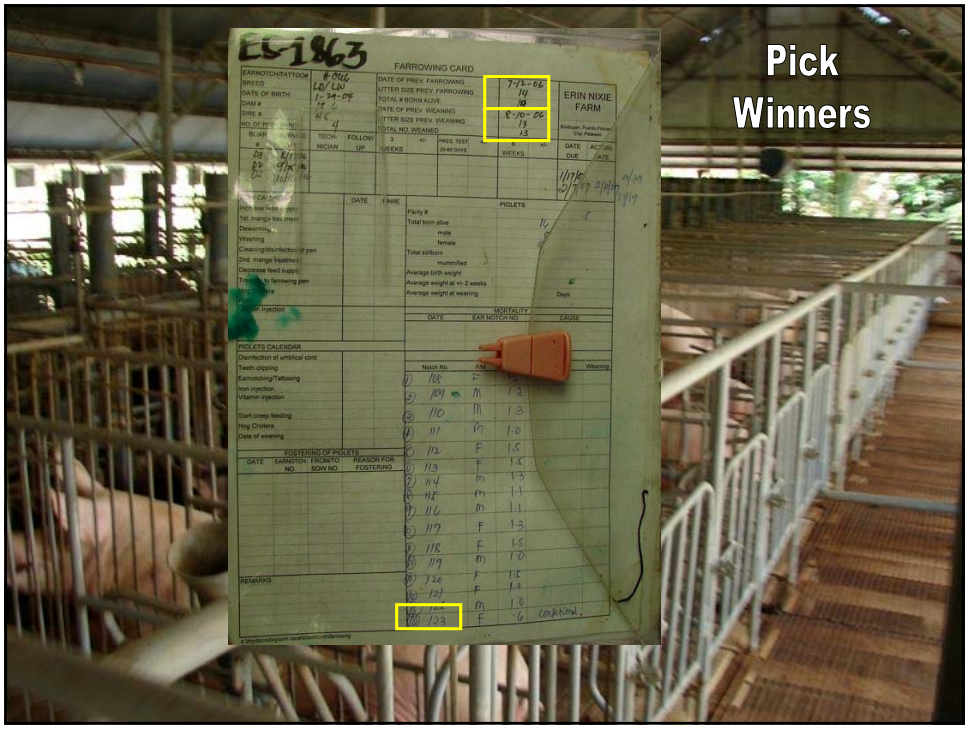
Hog Log

These guys won't fit on a tricycle


Hog Log
Bata pa ako, maliit pa…
At 112 Kilos
In 4 1/2 mo. fattening
Harvest by 6 months or flesh changes


Farrowing


Farrowing Unit
Hagedorn Piggery
Cement Flooring
20cm. bedding only


Pick
Winners
FARROWING CARD
ERIN NIXIE FARM

Farrowing

EM Livestock

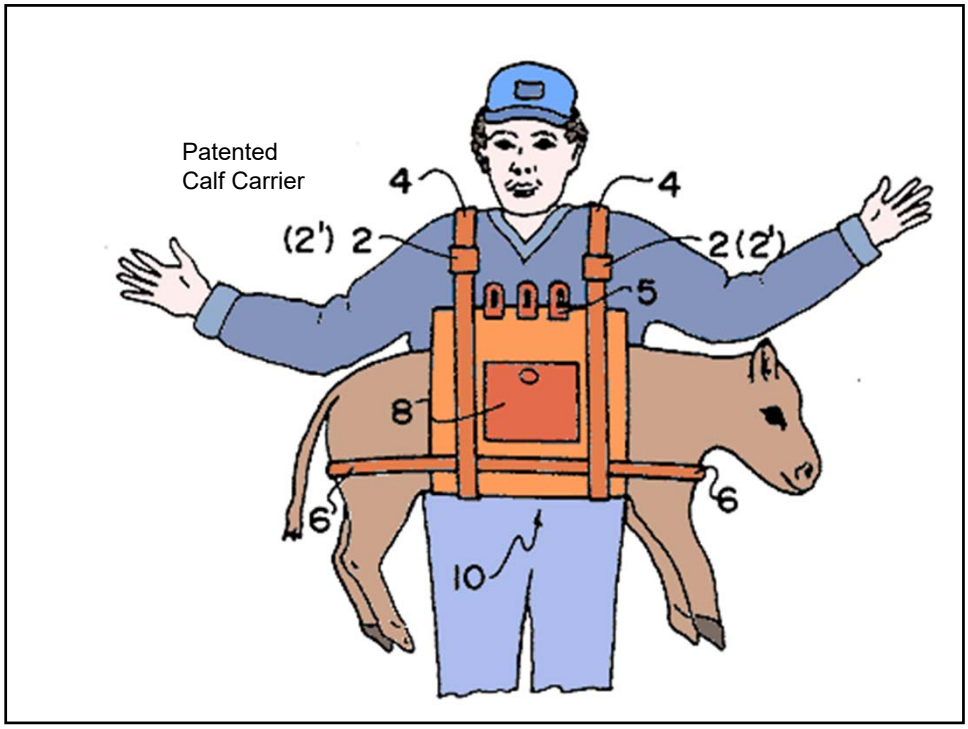
1. Cow
2. Goat
3. Chicken
4. Hogs
5. Pets
6. Ducks
7. Tilapia
8. Bees
9. Ostrich
10. Horse
11. Carabao


Cattle
Natural environment
Brownie

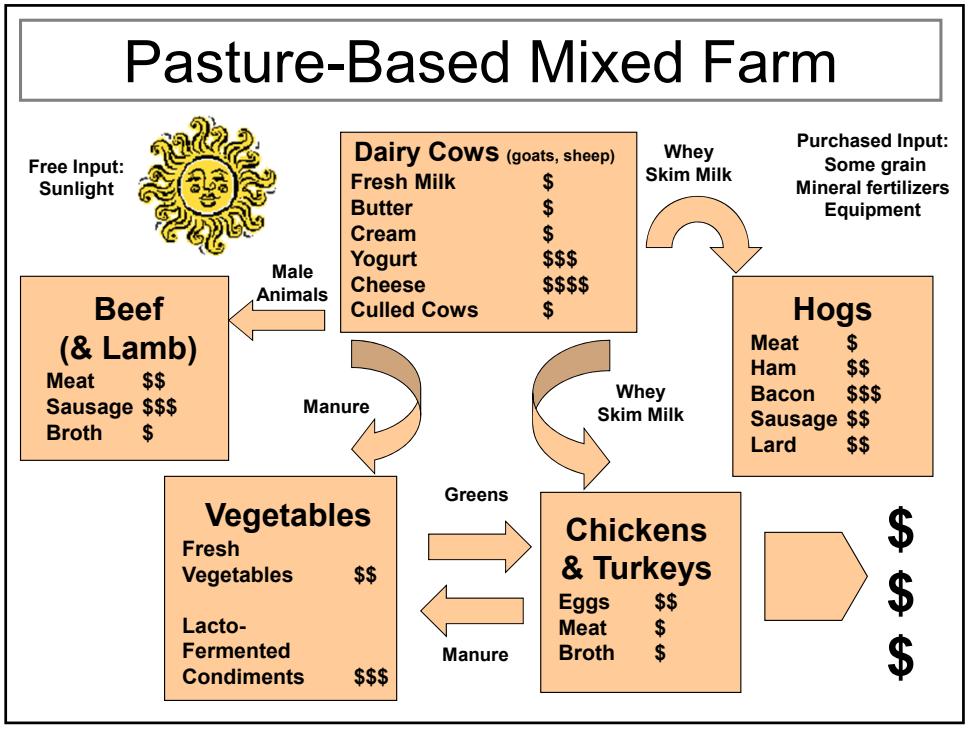

Cattle
Simple cow shed with sawdust floor
Natural environment
Brownie

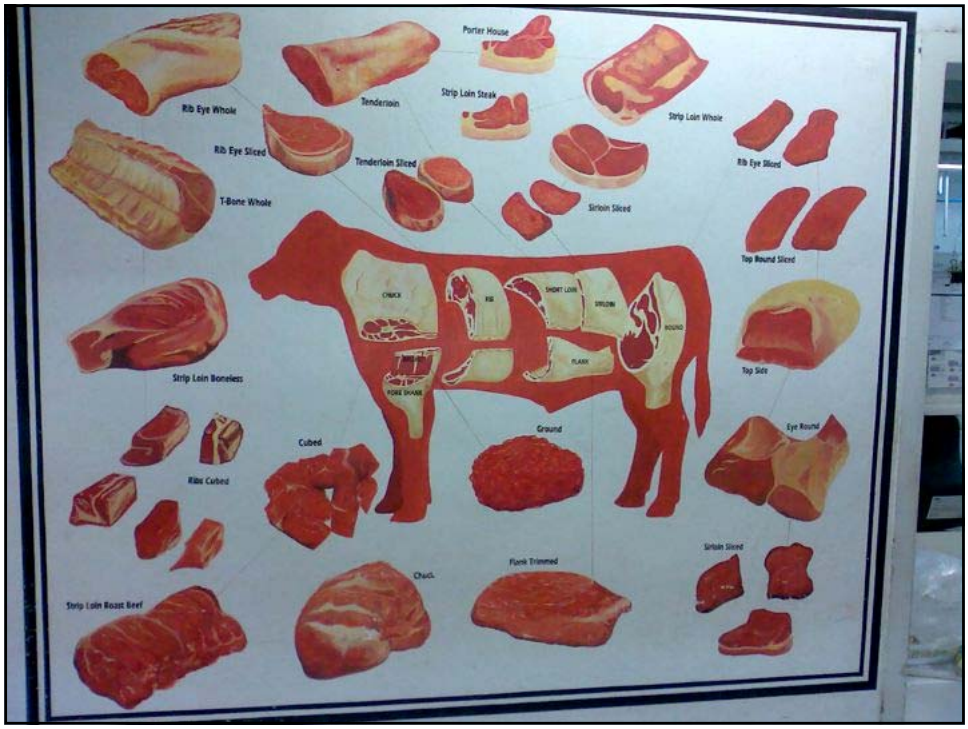

Cattle
Brownie
Natural Feeds


Cattle
5 weeks
Brownie
and Red
Natural Feeds


Patented
Calf Carrier
4
4
(2') 2
2 (2')
5
8
6'
6
10

Pasture-Based Mixed Farm



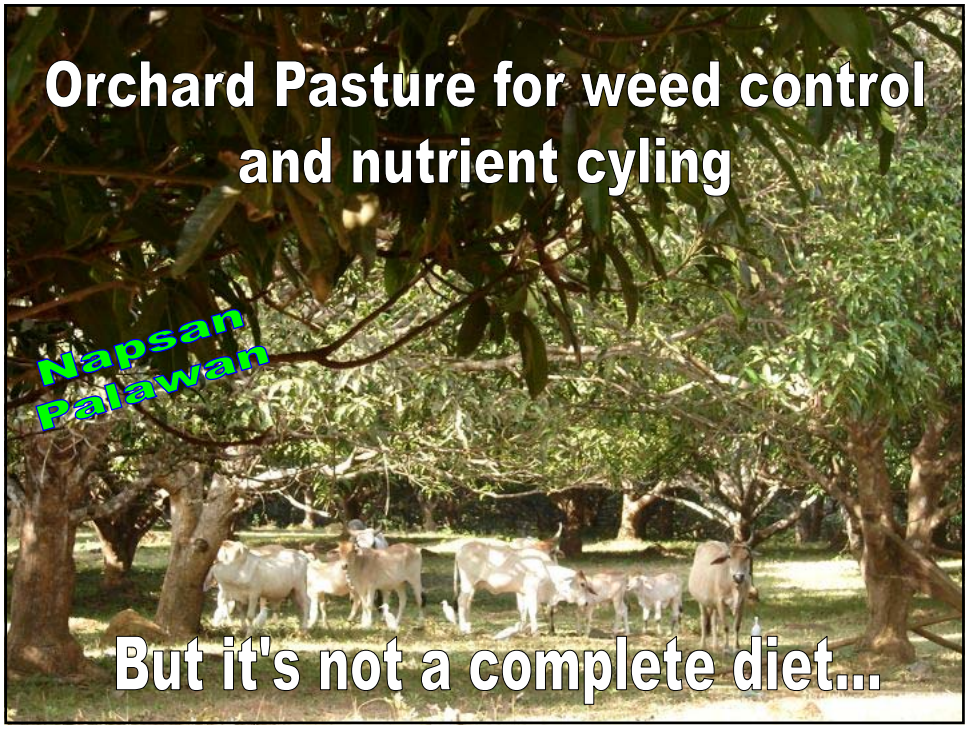


Cattle

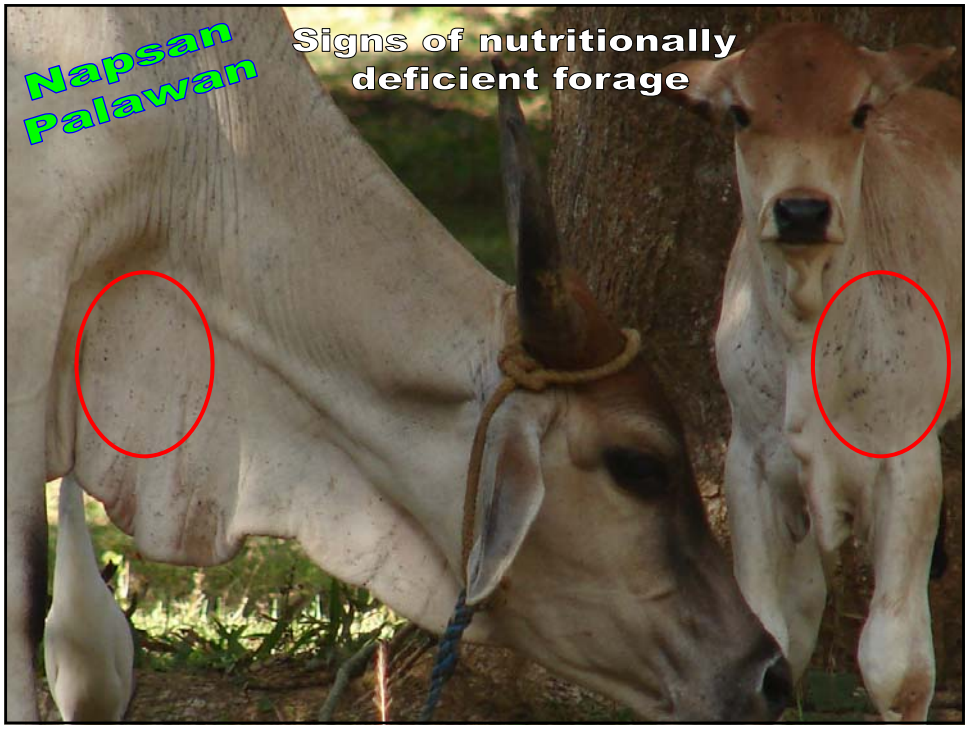
Natural Feeds

Cattle

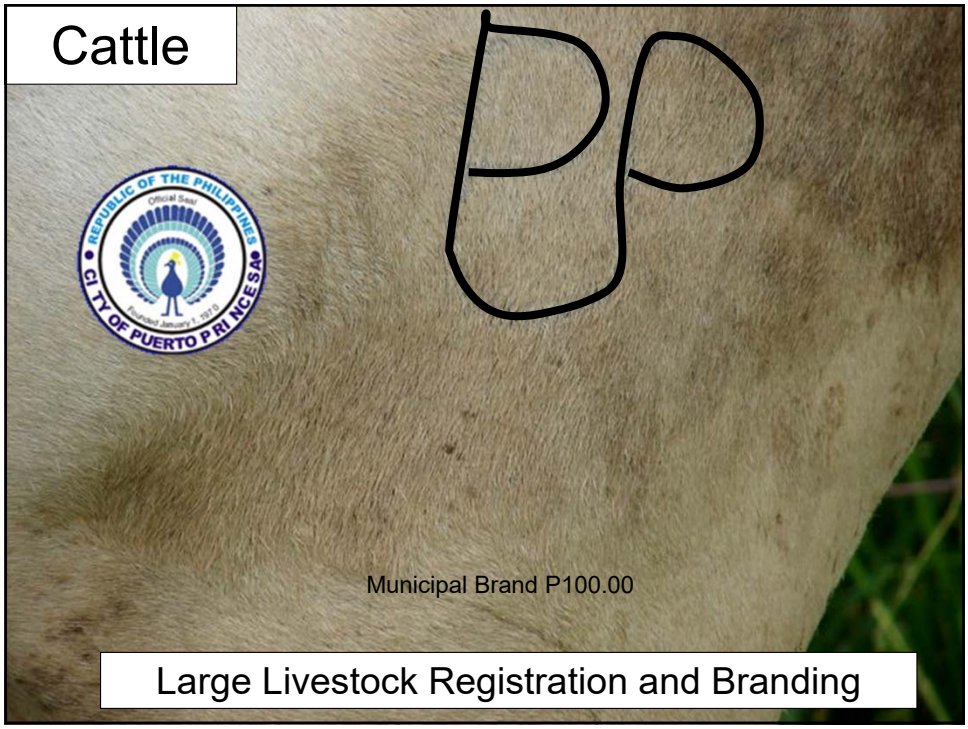
Natural Feeds


Orchard Pasture for weed control
and nutrient cyling
Napsan
Palawan
But it's not a complete diet...


Napsan
Palawan


Napsan
Palawan
Signs of nutritionally
deficient forage


Cattle
Large Livestock Registration and Branding
11 mo. 3 weeks 2 days
Required for Slaughter House
Natural Feeds


Cattle
Municipal Brand P100.00
Large Livestock Registration and Branding


Unique not similar to registered brands
Municipal Approval
“Records Book”
Cattle
Large Livestock Registration and Branding

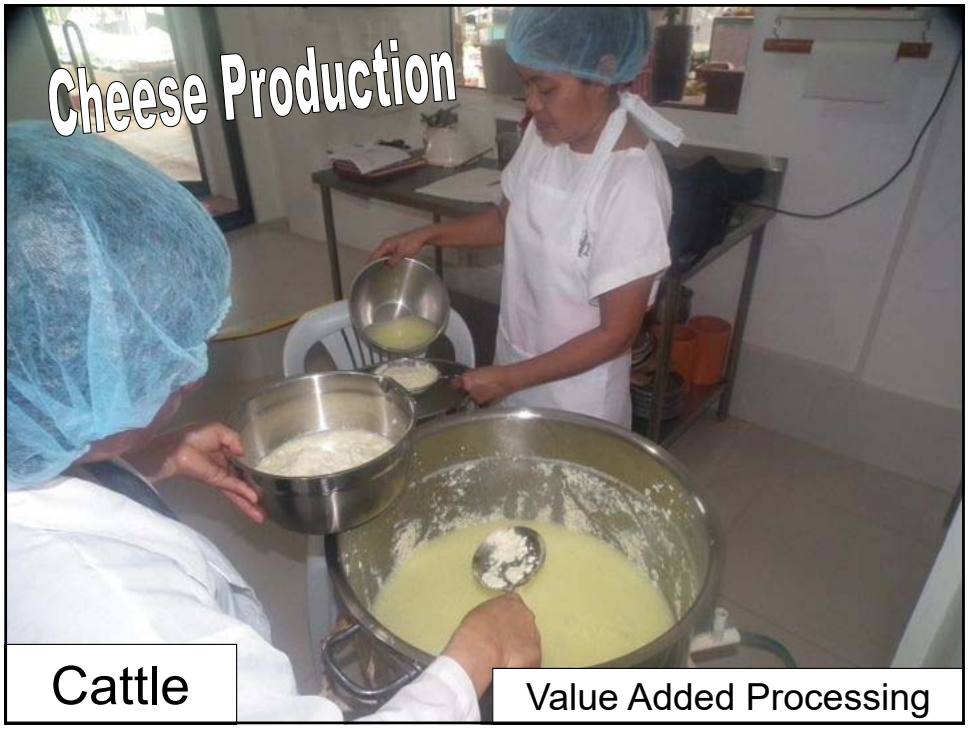
Cattle

Large Livestock Registration and Branding

Cattle

Large Livestock Registration and Branding

Nutritional Ledger	Grain Fed Beef	Grass Fed Beef
Added Hormones	Usually	No
Fed Antibiotics	Usually	No
Fed Grain	Yes	No
Omega-3 Fatty Acid	0.1	1.22
Omega-6 Fatty Acid	3.1	1.08
CLA	0.21	1.46
Beta Carotene	41	87
Vitamin E	1.3	5.3
Vitamin A	10	52
Total Fat	High & Saturated	Proper Balance
Flavor	Bland/Pasty	Original and Bold
All Other Factors	Fair	Ideal
E. coli Danger	E. coli Danger	Minimal


Cheese Production
Cattle
Value Added Processing