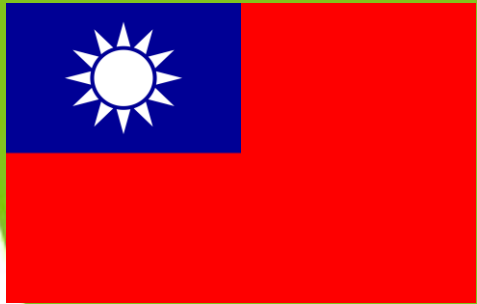


TAIWAN



GENETIC IMPROVEMENT IN SHEEP AND GOAT PROJECT,

TAIWAN-BELIZE



Sheep Production Installation Systems

-Cesar Melgar-
Central farm, Cayo District

INTRODUCTION

- ✓ In Belize we have a lot of materials that can be used to construct sheep barns and fencing.
- ✓ Many of these materials are ecological (will decompose or transform within certain time), readily available, sustainable and of low cost.
- ✓ Construction of sheep barn and fencing is one of the hardest tasks to do, and a lot of time consuming. But the only place where you will find the word “Success” before “Work” is in the dictionary!
- ✓ The general objective: By the end of the presentation, you will have a broad idea of materials you can use to start your sheep farm at a small scale.

THINGS TO CONSIDER

- ✓ The sheds should be constructed in an elevated area to prevent water stagnation.
- ✓ Types of sheds (raised, ground) depend on the system of rearing
- ✓ Open type housing with a covered area and run space is generally enough.
- ✓ For a comfortable house east-west orientation with generous air movement to dry the floor will be suitable.
- ✓ Sheds should be constructed with proper ventilation.
- ✓ Separate feeders and water troughs should be placed for concentrate feeds, green fodders and water.
- ✓ Sheds with mud floor are suitable for most of parts of the country except where high rainfall is observed.
- ✓ Walls of the shed should be free from cracks or holes, while constructing.
- ✓ Floors of the shed should be firm and should have the capacity to absorb water. The floors should be constructed in such a way, so that it should be easily cleaned.

SPACE REQUIREMENTS

Floor Space Requirement per animal

Types of animals	Minimum floor space per animal(sq. ft)
Ram or buck in groups	5'6"
Ram or buck - individual	10'
Lambs or kids - in group	1'6"
Weaner in groups	2'6"
yearling or goatlings	3'
Ewe or doe in groups	3'6"
Ewe with lamb	4'10"

E.g. If you want to accommodate 10 Ewes, calculate: $3.5 \text{ sq.ft} * 10 \text{ ewe} = 35 \text{ sq.ft}$.
Therefore the space required can be $7' * 5' = 35 \text{ sq.ft}$

SPACE REQUIREMENTS

Feeding space requirement

In average, every sheep or goat should have a space of 1'3" space for them to be able to feed and drink freely. E.g., if a total of 15 animals will be feeding in a feed trough, it has to be 18 feet long.



BASIC SHED TYPES REQUIRED

In a Perfect World...

- General flock shed (Ewe / Doe shed)
- Ram or buck shed
- Lambing or kidding shed
- Sick animal shed
- Shearing and storeroom
- Attendant's room

In the Real World...

It's ok to have:

- General flock shed has (Ewe / Doe / Ram / Lambing / Hoof trimming).

But it's **not ok** to have sick animal section within the General Shed.

Please try to build one!!



- Attendant's room and Storeroom is the farmer's house.

RAISED vs. GROUND FLOORING?

RAISED OR ELEVATED FLOOR SHED SYSTEM

- Its initial investment is high.
- In the wooden floor sheds, in a distance of 3-8 feet from the floor, the animals are reared.
- This requires less labor and more land for the fodder production.
- The elevated sheds will be clean and urine and dung will be collected in the floor and periodical removing is required once a month, to prevent high ammonia gas.



GROUND FLOORING: Deep Litter Method

DEEP LITTER METHOD(CAMA PROFUNDA)

- In this method, the litter materials like coconut husk, sugarcane tops, or ***wood shavings* alert** etc. are spread on the floor for a depth of 1/2 feet and animals are reared in it.
- The urine and manure mixed with the litter materials are used as fertilizer.
- The litter materials should be removed once in six months (if it gets overwet change as needed).
- In heavy rain seasons, the litter materials should not be over wet to prevent which would cause ammonia gas production.



GROUND FLOORING: MUD FLOOR

MUD FLOOR METHOD

- In this method, TWICE a year 1-2 inches of mud surface should be removed.
- Application of lime powder once in a month will reduce the disease occurrence in the shed.
- The shed should be constructed in elevated area to prevent water stagnation.
- The barn should be cleaned every week to remove manure.

MATERIALS: LUMBER

Lumber Siding (Lepas):

- ✓ The siding of lumber can be used to construct the sheep barn, including the floor.
- ✓ Things to consider:
 - a.) some lumber yards will sell expensive
 - b.) transportation
 - c.) for flooring: need to cut siding to make smooth angles as sheep may get stuck if there are grooves.



EXAMPLE OF LUMBER SHEEP BARN







MATERIALS: PALLETS

Things to consider when using Pallets:

- ✓ Pallets are treated with insecticides (may cause toxicity)
- ✓ Check thoroughly for nails and sharp “needle” wood.
- ✓ Triple wash the pallets with soap powder and plenty water. (not in rivers).



PALLETS



PALLETS (less than \$10.00 cost)



PALLETS CONTINUED..



LAST PALLET SLIDE (PROMISE)



MATERIALS: BAMBOO



BAMBOO FACTS

- ✓ Is freely available most of the times.
- ✓ Is 100% ecological and sustainable.
- ✓ Easily cut into strips.
- ✓ Do not use nails, use a drill and screws. Also tying wire.
- ✓ Dry bamboo is best! Entre mas seco mejor!



BAMBOO



OTHER OPTIONS

✓ **Sticks:**

Peel them first and let to dry, than cure spray it with diesel mixed with water. 4 parts water : 1 part diesel. This will prevent comejen!

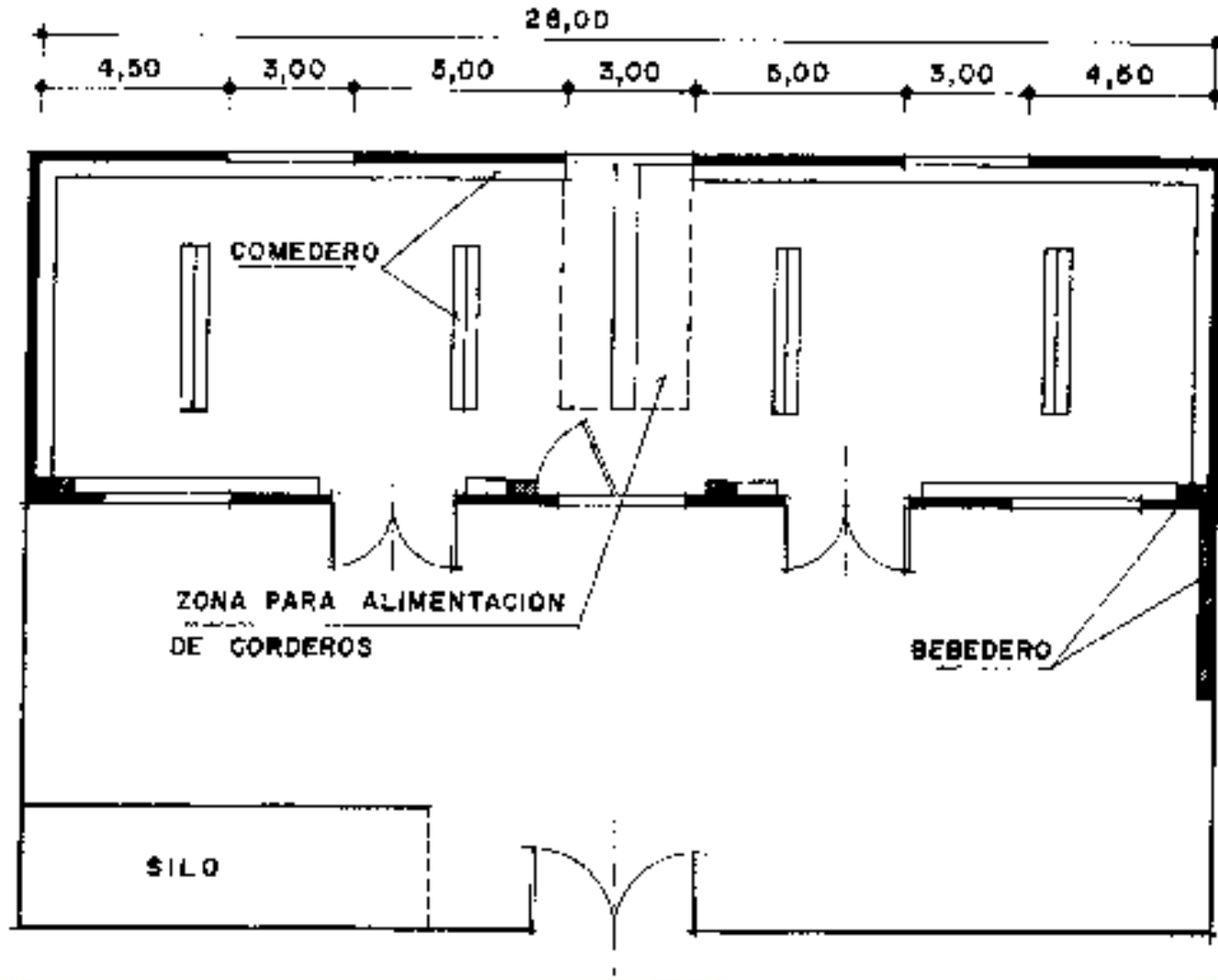
✓ **Thatch Roof:**

Can use Corozo or Guano Leaf.

✓ **Chain Link**

✓ **Adobe**

SIMPLE SHEEP INSTALLATION DESIGN



SIMPLE SHEEP INSTALLATION DESIGN



QUESTIONS AND ANSWERS

