

# GREEN FORAGE SOLUTIONS FOR FATTENING BEEF CATTLE



HOANG VAN HOANG

# Hello everyone! My name is Hoàng Văn Hoàng

- Technical consultant on livestock farming
- Providing solutions in livestock farming
- Media channel: YouTube, Facebook – HLT Channel/Effective Livestock Farming Solutions with more than **200,000 followers**.
- With the desire to **connect and develop** the cattle and buffalo production industry in Vietnam





01

# NUTRITIONAL PROTOCOL OF SOME LARGE FARMS IN VIETNAM

# NUTRITIONAL PROTOCOL

Tr Đoàn Kết, Quảng Bình	Khối lượng ăn/ngày	Đơn giá đ/kg	Thành tiền
<b>Thức ăn tinh</b>			
Cám hỗn hợp	4	7,800	31,200
Bột ngô	1	7,000	7,000
Cám mỳ	2	5,000	10,000
Bã bia	5	1,000	5,000
<b>Tổng thức ăn tinh</b>	<b>8</b>		<b>53,200</b>
<b>Thức ăn thô - xanh</b>			
Cỏ Xanh	5	600	3,000
Ngô ủ			
Cỏ Ủ			
Rơm	5	1500	7,500
<b>Tổng thức ăn thô - xanh</b>	<b>30</b>		<b>10,500</b>
<b>Phụ phẩm</b>			
Rỉ mật	0.5	5000	2,500
Mix		500	500
<b>Tổng lượng thức ăn</b>	<b>38.5</b>		<b>2500</b>
<b>Tổng chi phí/ngày</b>			<b>66,200</b>
<b>Chi phí/tháng</b>			<b>1,986,000</b>

FARM: 2.000 BUFFALO-BEEF CATTLE

Sunjin	Khối lượng ăn/ngày	Đơn giá đ/kg	Thành tiền
<b>Thức ăn tinh</b>			
Cám hỗn hợp	6	10,000	60,000
Bột ngô			-
Cám mỳ			-
Bã bia	3	1,900	5,700
<b>Tổng thức ăn tinh</b>	<b>6.5</b>		<b>65,700</b>
<b>Thức ăn thô - xanh</b>			
Cỏ Xanh	15	800	12,000
Ngô ủ			-
Cỏ Ủ	6	1400	8,400
Rơm	3	2250	6,750
<b>Tổng thức ăn thô - xanh</b>	<b>36</b>		<b>27,150</b>
<b>Phụ phẩm</b>			
Rỉ mật	0.5	5000	2,500
Mix		500	500
<b>Tổng lượng thức ăn</b>	<b>0.5</b>		<b>2500</b>
<b>Tổng lượng thức ăn</b>	<b>43</b>		
<b>Tổng chi phí/ngày</b>			<b>95,350</b>
<b>Chi phí/tháng</b>			<b>2,860,500</b>

FARM: 1.000 BEEF CATTLE

Phú Lâm	Khối lượng ăn/ngày	Đơn giá đ/kg	Thành tiền
<b>Thức ăn tinh</b>			
Cám hỗn hợp	6	9,450	56,700
Bột ngô			-
Cám mỳ			-
Bã bia			-
<b>Tổng thức ăn tinh</b>	<b>6</b>		<b>56,700</b>
<b>Thức ăn thô - xanh</b>			
Cỏ Xanh	25	800	20,000
Ngô ủ			-
Cỏ Ủ		1400	-
Rơm	3	2250	6,750
<b>Tổng thức ăn thô - xanh</b>	<b>40</b>		<b>26,750</b>
<b>Phụ phẩm</b>			
Rỉ mật	0.5	5000	2,500
Mix		500	500
<b>Tổng lượng thức ăn</b>	<b>0.5</b>		<b>2500</b>
<b>Tổng lượng thức ăn</b>	<b>46.5</b>		
<b>Tổng chi phí/ngày</b>			<b>85,950</b>
<b>Chi phí/tháng</b>			<b>2,578,500</b>

FARM: 10.000 BEEF CATTLE

# —• Average cost of feed(%)

**01** Concentrate feed: from **65 – 70%**

**02** Forage: from **28 – 33%**

**03** Nutrition (mix, salt, molasses ...): **3 – 5%**

100% of feed contains:

- Concentrate Feed:	9.000 – 10.000đ/kg
- Forage	
+ Grass:	600 – 800đ/kg
+ Biomass corn :	1.500đ/kg
+ Silage corn:	2.000 – 2.200đ/kg
+ Straw :	1.500 – 2.500đ/kg



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## CHALLENGES IN PREPARATION OF FORAGE FOR BEEF CATTLE IN VIETNAM

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# Grassland resources are limited and not centralized



01

## Limited land to grow cattle feed

- Farms are constrained, ranging from 10 to 20 hectares
- Many have to rent land for cattle raising
- Growing cattle feed is overlooked by many farmers

02

## Hilly land small and scattered

- Hilly terrain poses challenges for cultivation and care.
- Mechanization in production is difficult to implement.
- Productivity is not high.

**COST OF SELF PRODUCING FEED IS HIGH, EVEN HIGHER THAN BUYING FROM SUPPLIERS**



### Buy from other farmers

Most farms currently buy grass for 600 - 800 VND/kg

### Growing Forage

If they grow forage - Average cost is from 600 - 700 VND/kg.





# Inadequate amount of cattle feed



01

## Not preparing enough feed before importing cattle

Importing 1000 beef cattle, how much straw, how much green grass, how much silage corn will need to be prepared? What is the quantity of food for each week, each month?

02

## Farmers are often passive when raising cattle & during farm operations

- If it rains today, what will cattle eat?
- If there is not enough grass in the winter, where should they buy it?

The nutritional protocol is unstable and changes frequently → affects the growth & development of the beef cattle

# Raw material supply sources have not yet been developed and linked

## FREQUENT QUESTIONS...



Where does the forage come from? Where does biomass corn come from? Where do silage corn and straw come from?

**WHO OR WHAT COMPANY WILL SUPPLY FOOD FOR THE FARM DURING THE YEAR?**



# Advantages and disadvantages in developing feed sources in beef cattle farming in Vietnam

## Advantages

### Agricultural country

- Source of agricultural by-products is abundant: Straw, Beer residue, Cassava residue, Molasses...

## Disadvantages

### There is no linkages yet

- There has not been a signed contract between the raw material producer and the feedlot.
- → Farmers + cooperatives do not produce because they are afraid that no one will buy. Output is precarious and unstable

### The company which produces grass and maize silages

- Production is for export only
- Stable goods, assured raw material areas and processing stages



02

## SOLUTION

1. Farm should cooperate with companies and cooperatives which supply raw materials
2. Grow their own forages for cattle consumption



# 1. DEVELOPING RAW MATERIAL AREAS



## Farmers, cooperatives

- Mobilize farmers to take advantage of idle land to grow Forage and maize to supply cooperatives.
- The cooperative leases land from farmers to grow raw material areas

### Product

Providing forages and biomass corn all year round for the farm. Farmers and cooperatives will not have to worry about feed shortage



## Processing cooperative

- Providing forage and biomass corn for farms.
- Processing silage corn to supply the farm

### Product

- Providing corn silage and grass silage products all year round for the farm



## Feedlot

- Food source is assured.
- **Reduce costs in livestock farming**
- **The farm develops stably.**

### Product

Create high-value beef cattle





**SOIL  
PREPARATION**



**SOWING**

**APPLYING MECHANIZATION TO BIOMASS CORN  
PRODUCTION**



**HARVEST**



**CARE**

# PREPARE SILAGE BEFORE IMPORTING BEEF CATTLE





## 2. GROW THEIR OWN FORAGES

### \* Condition:

- Land can apply mechanization to production
- If the farm is large, there must be a specialized in forage production





Case study

## Mr Quoc's Feedlot

- 70 hectares of fresh vegetables to supply to Saigon  
Feedlot with more than 500 beef cattle and reproductive cows





## WHY CATTLE FEEDLOT



Vegetables  
production

### 70 hectares of fresh vegetables

- Planting without intercropping → **poor productivity**
- **Cost of manure is estimated at about 3 billion VND /year(\$190,000AUD)**
- There are many sources of vegetable by-products .



CATTLE  
PRODUCTION

### Fattening 500 beef cattle and reproductive cows

- Using 100% by-products to feed cows, there is almost no need to use the concentrate food
- Take advantage of manure sources
- Use machines for production → 3 people take care of 500 cattle

## USING MACHINES FOR ANIMAL AND CROP PRODUCTION



### Corn harvester

When the corn is mature to harvest, it will be cut by machine and brought to the farm for feeding or silage



### Harvester + transportation to the farm

Corn is harvested then transported to the farm by a corn mixer.



### Food

Include:

- Biomass corn
- Silage corn
- Vegetable by-products
- Straw



**USE OF LIVESTOCK BY-PRODUCTS**



## 10 hectares of intercropping with biomass corn and fresh vegetables

- The cost of creating 1 kg of biomass maize is ~ 700 VND/kg.
- Maize and vegetable yields increase when intercropped.
- Take advantage of second graded vegetables and vegetable by-products to feed cattle
- Take advantage of large sources of microbial fertilizer to fertilize vegetables and plants



# Cost of cattle fattening at Mr. Quoc's feedlot

Nutrition for cattle 450 - 500kg

Tr Mr Quốc	Khối lượng ăn/ngày	Đơn giá đ/kg	Thành tiền
<b>Thức ăn tinh</b>			
Cám hỗn hợp	3	9,500	28,500
Bột ngô			-
Cám mỳ			-
Bã bia			-
<b>Tổng thức ăn tinh</b>	<b>3</b>		<b>28,500</b>
<b>Thức ăn thô - xanh</b>			
Rau xanh loại	5	300	1,500
Ngô ủ	15	1200	18,000
Cỏ Ủ		1400	-
Rơm	2	2000	4,000
<b>Tổng thức ăn thô - xanh</b>	<b>42</b>		<b>23,500</b>
<b>Phụ phẩm</b>			
Rỉ mật	0.3	5000	1,500
Mix		500	500
<b>Tổng lượng thức ăn</b>	<b>0.5</b>		<b>2500</b>
<b>Tổng lượng thức ăn</b>	<b>45.5</b>		
<b>Tổng chi phí/ngày</b>			<b>54,500</b>
<b>Chi phí/tháng</b>			<b>1,635,000</b>

The cost is much cheaper than other farms

- Silage maize: 1.200đ/kg
- Vegetable by products: 300đ/kg
- Straw: 2000đ/kg

10 hectares of intercropped maize are enough to provide food for 500 cattle in 1 year

PICTURE OF THE CATTLE BEING FATTENED FOLLOWING THE NUTRITIONAL PROTOCOL



# For sustainable and stable development

We need close cooperation

## Farmers, cooperatives

Providing materials for farms and cooperatives to produce food for livestock farming

## Cooperatives

Providing biomass maize, silage corn, and straw for livestock farms

## Farms

- The farm has enough food ingredients to assure for production and development of the farm
- Providing quality & stable meat products for slaughterhouses

## Slaughterhouses

- Stable source of cattle
- Meat quality is guaranteed and safe.
- The meat ratio is achieved

**Production & business development are guaranteed.**



# SUSTAINABLE DEVELOPMENT FARM



ANIMAL PRODUCTION



CROP PRODUCTION

Fertilizer

By-products



USE AVAILABLE HUMAN RESOURCES TO REDUCE LIVESTOCK COSTS





**HLT Viet Nam**

Giải Pháp Chăn Nuôi Hiệu Quả



**THANK YOU  
FOR YOUR ATTENTION**