

# **SECURING SUSTAINABLE LIVESTOCK: CHALLENGES AND OPPORTUNITIES**

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**SUSTAINABLE LIVESTOCK FARMING**  
**Economics is Everything!**

# CATTLE CENSUS- STATS

Livestock Population in India - Millions	
Species	2019
Cattle	192.5
Adult Female Cattle	81.4
Buffalo	109.9
Adult Female Buffalo	55
Total Bovines	302.3
Sheep	74.3
Goat	148.9
Total Livestock	535.8

**Cows – 19.5 cr**

Stray Animal & Male – 4.5 cr

Milk Animal – 7.5 - 8 cr

Calves / Heifers – 7-7.5 cr

ETT/ Imported / Sex semen – 40,000 Female Calves

Local Semen – 1.25- 1.5 cr Total Calves

**Buffaloes – 10 cr**

Adult Female Buffalo – 5.5 cr

Calves / Heifers/ Male – 4.5 cr

# METHANE/GHG EMISSIONS

## AVERAGE AMOUNT OF METHANE PRODUCED EACH YEAR



230 KG METHANE      5260 kg CO2

2 COWS IN ONE YEAR PRODUCE  
AS MUCH GREENHOUSE GAS AS  
1 CAR DRIVEN 16000 KMS

### GENETIC IMPROVEMENT

-10 to -50%

- PRODUCTIVITY
- LONGEVITY
- FEED EFFICIENT

### HERD MANAGEMENT

-5 to -15%

- HEALTH
- METABOLIC DISORDERS
- HERD REPLACEMENT

### RATION MANAGEMENT

-10 to -15%

- IMPROVING FEED EFFICIENCY
- METHANE INHIBITORS
- PRECISION FEEDING

### FEED SUPPLEMENT / ADDITIVES

-15 to -30%

- RUMEN EFFICIENCY (MODULATORS)
- LOWER CRUDE PROTEIN
- FOCUS ON AA
- MYCOTOXINS CONTROL

# MAJOR CHALLENGES

- ❖ **Economic Impact Of Diseases**
- ❖ **Vaccination Failure & Diseases**
- ❖ **Efficiency & Productivity**
- ❖ **Emerging Viral Diseases**
- ❖ **Feed, fodder & Water-Quality And Quantity**

# DISEASE CHALLENGES

- ❖ **Heat Stress-Root cause of Most Diseases**
- ❖ **FMD, TB & JD, Brucellosis, Mastitis & Infertility**
- ❖ **Metabolic Disorders**
- ❖ **Mycotoxin, Endotoxins & Leaky gut**
- ❖ **Anti-microbial Resistance (AMR)**

# MAJOR OPPORTUNITIES

- ❖ **140 Crore Population**
- ❖ **Malnutrition & Hunger**
- ❖ **Rising Urban Population**
- ❖ **Post-covid Awareness-Hygienic & Packaged Foods**
- ❖ **Semi-urban **HORECA** Segment**

# PDFA-SUSTAINABILITY MODEL – UNITY FOR PROGRESS FOR THE FARMERS , “BY THE FARMERS

## PDFA DAIRY HERD

**0.35 Million cows**  
( India 72 million)

## AVERAGE HERD SIZE

**40-50 COWS** ( India 2-5 COWS)



## PDFA MEMBERS

**9000+**

## AVERAGE MILK PRODUCTION/COW

**8000-12000 LTR/LACTATION**

## AVERAGE YIELD PER DAY

**25-35 LTR/DAY**



# PDFA-SUSTAINABILITY MODEL – UNITY FOR PROGRESS

## SOCIAL SUSTAINABILITY



# PROGRESSIVE APPROACH

## DAIRY INDUSTRY

### Leading approach

- Better price
- Milk quality (Aflatoxin , Antibiotic free )
- Quantity incentives to encourage produce more milk
- Extra benefits to adopt new technologies

Milk Companies

### Revolutionary approach

- Feeding Technology
- Ration Balancing as per animal requirement
- Mix Ration feeding Concept
- Calf Rearing

MNC Feed Companies

### Micro level approach

- Micro Nutritional supplements
- Ration Balancing as per animal requirement
- Working at farm level
- International exposure

Supplements Companies

### Supporting approach

- Quality feeds
- Adopted new technologies
- Expert guidelines followed
- Delivery at farm gate
- Financial support to farmers

Feed Mills

### Serving approach

- Farm education
- Quality Supplements
- Awareness
- Quality control
- Milk procurement

PDJ  
100% Happiness



# FOR THE FARMERS , “BY THE FARMERS”



# PDS

## 100% Happiness

Since 2013

### Wide Range of Nutritional Products



### PDS Lab



### Nutritional Management



### Guidance on Social Media



### PDS Dairy Mart



### Dairy Seminars



### Cluster Meetings



### Hoof Trimming Trainings



### Farm Management



### Gynae Service



# DAIRYING IN PUNJAB

## THE DAIRY STATE

Total 100 animals Project

HERD DISCRPTION							
<b>LACTATING ANIMALS</b>	<b>ANIMALS</b>	<b>MILK(L)</b>	<b>PRICE</b>	<b>VALUE</b>		<b>Milk Production</b>	8000
MILK PRODUCTION@8000	60	480000	₹ 42.00	20160000		Silage Price	₹ 4.00
ANIMALS SALE	20		150000	3000000		Milk Price	₹ 42.00
			<b>TOTAL EARNING</b>	23160000			
<b>EXPENSES</b>		<b>SILAGE</b>	<b>FEED</b>	<b>WHEAT STRAW</b>	<b>CMR</b>	<b>TOTAL F COST</b>	
60 MILKING ANIMALS 305 DAYS		₹ 2,415,600.0	7296000	183000		9894600	
20 CALF STARTER(90 DAYS)			117600	100	260000	377700	
20GROWING 90 TO 420		203280	594000	66000		863280	
20 HEIFERS		321300	432000	135000		888300	
DRY		142800	576000	108000		826800	
TRANSITION		79800	252000	30000		361800	
LABOUR ANNUAL 3 PERSO	₹ 540,000.00	₹ 3,082,980.00	₹ 9,015,600.00			₹ 13,212,480.00	
ELECTRYCITY	720000					₹ 2,906,800.00	
OTHER	130000		Silage required	903651.43		₹ 16,119,280.00	
FEUL	316800		Total acre required	47.5606015			
VET COST	600000						
misc	600000						
	₹ 2,906,800.00						<b>TOTAL EARING ₹ 7,040,720.00</b>
							<b>HEIFERS COST 106464</b>

# DAIRYING IN INDIA

Total 100 animals Project

HERD DISCRPTION							
<b>LACTATING ANIMALS</b>	<b>ANIMALS</b>	<b>MILK(L)</b>	<b>PRICE</b>	<b>VALUE</b>		<b>Milk Production</b>	<b>6000</b>
MILK PRODUCTION@6000	60	360000	₹ 35.00	12600000		<b>Silage Price</b>	<b>₹ 7.50</b>
ANIMALS SALE	20		150000	3000000		<b>Milk Price</b>	<b>₹ 35.00</b>
			<b>TOTAL EARNING</b>	15600000			
<b>EXPENSES</b>		<b>SILAGE</b>	<b>FEED</b>	<b>WHEAT STRAW</b>	<b>CMR</b>	<b>TOTAL F COST</b>	
60 MILKING ANIMALS 305 DAYS		₹ 4,529,250.0	5472000	183000		10184250	
20 CALF STARTER(90 DAYS)			117600	100	260000	377700	
20GROWING 90 TO 420		₹ 435,600.00	594000	66000		1095600	
20 HEIFERS		₹ 688,500.00	432000	135000		1255500	
DRY		₹ 306,000.00	576000	108000		990000	
TRANSITION		₹ 171,000.00	252000	30000		453000	
LABOUR ANNUAL 3 PERSO	₹ 540,000.00	₹ 5,959,350.00	₹ 7,191,600.00			₹ 14,356,050.00	
ELECTRYCITY	720000					₹ 2,906,800.00	
OTHER	130000		Silage required	1751528.57		₹ 17,262,850.00	
FEUL	316800		Total acre required	92.18571429			
VET COST	600000						
misc	600000						
	₹ 2,906,800.00						
						<b>TOTAL EARING</b>	<b>₹ -1,662,850.00</b>
						<b>HEIFERS COST</b>	<b>136440</b>

## KEY SOLUTIONS!

- ❖ **PLANNED GENOMICS & DATA RECORDING**
- ❖ **BALANCED & ECONOMICAL PHASE FEEDING**
- ❖ **EFFICIENCY AND PRODUCTIVITY**
- ❖ **AFFORDABLE DIAGNOSTICS-FARMER DOOR STEP**
- ❖ **REMUNERATIVE & STABLE PRICES**
- ❖ **VACCINATION PROTOCOLS AND COLD CHAIN**
- ❖ **TRAIN THE TRAINERS (VETS, PARA-VETS & AIT)**
- ❖ **FARMER FRIENDLY & VISIONARY ORGANIZATIONS**

**THANK YOU!**

**Lets Do More With Less!**

**Lets Leave No One Behind!**