

# JOB ROLE – DAIRY FARMER-I

Sector – Agriculture

(Qualification Pack Code: Ref.Id.AGR/Q4101)

Class XI<sup>th</sup>



PSS Central Institute of Vocational Education  
Shyamla Hills, Bhopal – 462 013 , Madhya  
Pradesh, India

---

[www.psscive.ac.in](http://www.psscive.ac.in)

# **UNIT 1: Introduction to Dairy Farming**

## **Session 2: Important Breeds Of Cattle**

# Content

Title	Slide No.
Session Objectives	04
Introduction	05-06
Common Body Parts of Cattle	07
Indigenous Cattle Breeds of Economic Importance	08-12
Exotic Cattle Breeds	13
Cross Bred Cattle	14-15
Indian Buffalo Breeds	16-20
Summary	21

# Session Objectives

The student will learn about the

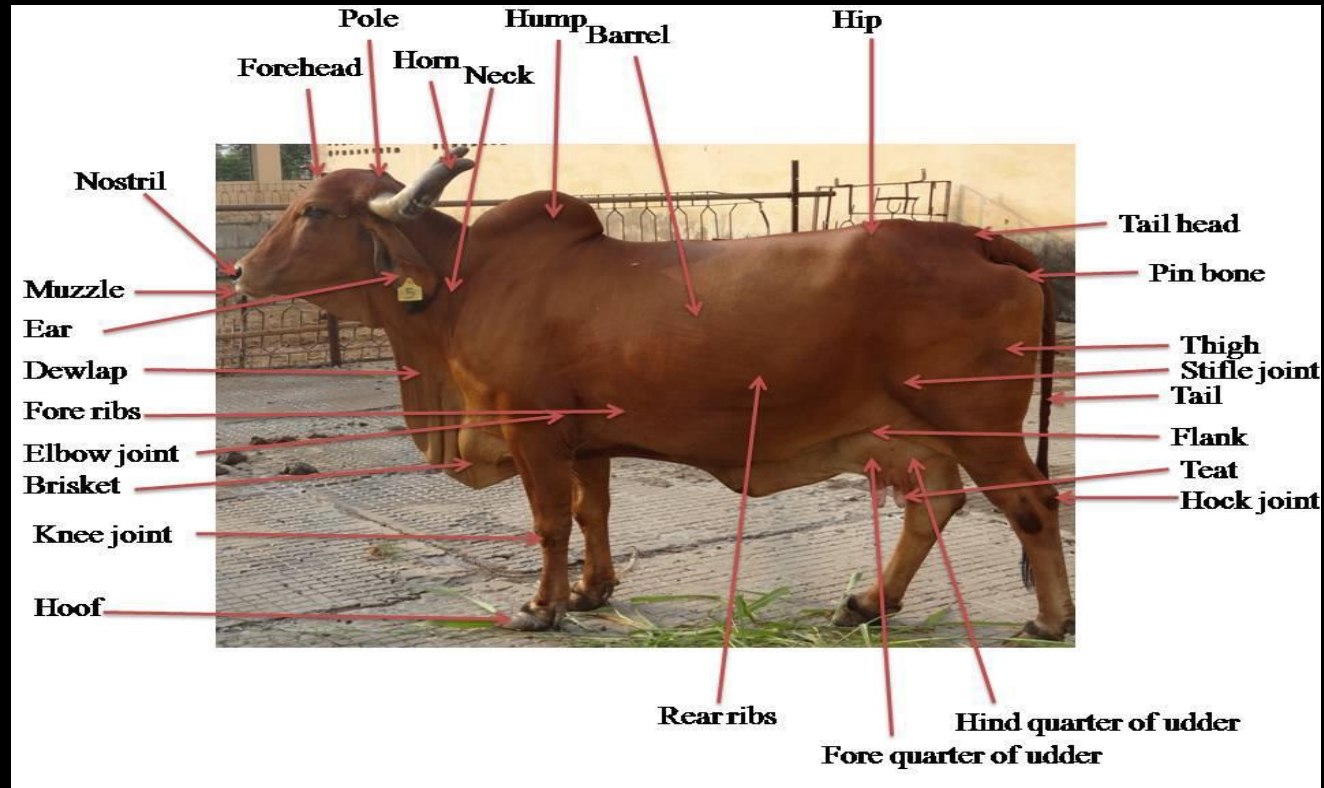
- Common body parts of cattle
- Important breeds of cattle which would include :
  - Indigenous cattle breeds of economic importance
  - Exotic cattle breeds
  - Crossbred cattle
  - Indian buffalo breeds

# Introduction

- The controlled rearing of domestic animals to improve their desirable qualities is called animal breeding
- The members of a breed have a common ancestry and possess similar physiological and economic characteristics that are inherited in that breed.
- In India, a number of indigenous (*desi*) cattle breeds as well as crossbred cattle are engaged in milk production

- Crossbred cattle are developed by crossing the indigenous (*Bos indicus*) and exotic cattle (*Bos taurus*) breeds.
- Exotic dairy cattle breeds originated in different climatic conditions and have higher milk production potential, but these breeds are not well adapted to the Indian climatic conditions.

# Common Body Parts of Cattle



# Important Dairy Breeds of Cattle

## Indigenous Breeds

Breed	Synonyms	Habitat	Color	General Description	Utility
Gir	Kathiawari  Surti, Desan.	Kathiawar region of Gujarat.	Red mottling with almost black. A few spots of white sometimes.	Voluminous dewlap and moderately developed sheath.  The hump is well developed and placed in front of the withers. The limbs are widely placed but are not so muscular.	The cows are good milkers on the whole but very a great deal in this respect. Bullocks are heavy and powerful animals, but are medium paced in movement.
Haryana		Haryana, West UP. and East Rajasthan.	White or light grey in color,	Poll on the top of forehead. Long narrow face and flat forehead. The short curved horns emerging from the outer angle of poll. Ears are sharp & small. Dewlap & sheath are small, well formed udder.	Bullocks are good work animals particularly for fast ploughing and road transport. Cows are good milkers.

Cont...



<b>Sahiwal</b>	<b>Montgomery, Lambi Ber, Lola</b>	<b>Montgomery district of Punjab of Pakistan</b>	<b>Reddish dun and white</b>	<b>They are of medium size. The forehead is broad with bright eyes and blunt thick horns. The hind quarters are well developed</b>	<b>Bulls are used both for ploughing and for cart. Cows are good milkers.</b>
<b>Red Sindhi</b>	<b>Sindhi or Scindhi</b>	<b>Karachi and Hyderabad regions of Pakistan</b>	<b>Deep dark red</b>	<b>A white mark on the forehead is present. Well proportioned head with moderate size. Thick horns which emerge laterally. Rounded drooping quarters, well developed hump, dewlap, sheath and milk vein.</b>	<b>Cows are very good milkers. Bullocks are used for heavy load on roads.</b>

Cont...

Tharparkar	Thari	Marwar region in Rajasthan and Gujarat	White or light grey	Animals are of medium size with short straight and strong limbs. They have moderately long face with broad poll and slightly bulging forehead. Males give a general impression of virility. Horns are of medium size. In young animal particularly there is a white or light grey line along the spine.	Bulls are used for ploughing and carting. Cows are very good milkers.
------------	-------	--	---------------------	---	---



**Gir**



**Hariana**



**Shahiwal**



**Red Sindhi**

Cont...



**Tharparkar**

# Exotic Cattle Breeds

- Exotic breeds of cattle have been used in India with the objective to improve the milk production.

Breed	Habitat	Body colour	Average lactation yield (litres)	Fat (%)
Holstein Friesian	Holland	Black and white	6100-6200	3.5
Jersey	Island of Jersey in the English channel	Fawn with or without white marking	4000-4500	5.5
Brown Swiss	Switzerland	Distinctly brown	5200-5400	4.0
Ayrshire	Scotland	Light to deep cherry red with or without shades	4800-5000	4.1

## Cross Bred Cattle

- Cross-breeding of cattle means the mating of animals from different established breeds, for example, Holstein Friesian with Sahiwal
- The progeny of cross-breeding is called crossbred, which exhibits a mixture of qualities of both the parent breeds
- The programme of crossbreeding of dairy cattle has played a role in increasing milk production in India.

## Popular crossbred cattle available in India

Name of the crossbred	Cross between		Place of origin
	Indigenous breed (female)	Exotic breed (male)	
Sunandini	Local cows (37.5%)	Brown swiss (62.5%)	Kerala
Karan swiss	Sahiwal and Red Sindhi	Brown Swiss	Karnal, Haryana
Frieswal	Sahiwal (37.5%)	Holstein Friesian (62.5%)	Millitary dairy farms
Karan fries	Tharparkar	Holstein Friesian	Karnal, Haryana
Phule Triveni	Gir (25%)	Holstein Friesian (50%), Jersey (25%)	Maharashtra

## Indian Buffalo Breeds

- There are two general types of buffaloes, *viz.*, swamp buffaloes and river buffaloes.
- Major buffalo population of India are of river buffalo type.
- Buffaloes are present in almost every part of India and can be considered the backbone of the milk supply and milk processing industry in India.
- About half of the total milk produced in the country is contributed by buffaloes, although their population is almost half of the cow population.
- There are 13 well-known indigenous breeds of buffaloes in India



Group	Breeds	Breeding tract	Horn characteristic
Punjab and Haryana	Murrah	Rohtak, Jind, Hissar, Bhiwani, Sonapat district of Haryana	Flat, short, tightly spirally curving inward
	Nili-Ravi	Ferozpur district of Punjab	Small and coiled tightly
Gujarat	Surati	Kaira and Baroda	Flat, sickle shaped and at the tip to form a hook.
	Jaffarabadi	Kutch, Junagarh & Jamnagar	Heavy horns, inclined to droop at each side of the neck and then turning up at point (drooping horns).
	Mehsana	Mehsana, Sabarkantha, Banaskantha	The horns are curled at the tip but not so tightly curled as in murrah horns are longer than Murrah and could be of irregular shape.
	Banni	Gujrat	Horns are vertical and upward in direction with inverted single or double coiling

Group	Breeds	Breeding tract	Horn characteristic
Uttar Pradesh	Bhadawari	Bhadawari estate, Beh Tehsil in Agra, Gwalior and Etawah district, Uttar Pradesh	Horns are curling slightly outward, downward before running backward parallel and close to neck and finally turning upward
	Terai	Tarai region of Uttar Pradesh	Horns are long and flat, bending backwards and upwards having pointed tips
Central India	Nagpuri	Nagpur, Akola, Amarawati district of Maharashtra	The horns are long, flat and curved, bending backward on each side of the back (sword shaped horns).
	Marathwadi	Beed, Parbhani, Jalna, parts of Nanded, Latur, Hingoli and Osmanabad districts of Marathwada region	Horns are mostly round, comparatively short, slightly curved straight way going parallel to neck and not extended beyond hump.
	Pandharpuri	West Andhara Pradesh, North Karnataka, Hilly region of Andhara	Long, sword shaped, sometimes twisted horns

Group	Breeds	Breeding tract	Horn characteristic
Central India	Kalahandi	Eastern part of Andhra Pradesh and adjoining areas of Odisha	Broad and half curved running backward at the tip
	Chilika	Surrounding Chilika lake in Odisha	As the age of animal advances, the horns grow upward, lateral and finally inward to develop typical sickle shape. The tips of both horns often meet to make a full circle or sometimes leave very little gap.
South India	Toda	Nilgiri hills of Tamil Nadu	The horns are set wide apart curving inward, outward and forward forming a characteristic crescent or semicircle shape.



**Murrah**



**Jaffarabadi**



**Bhadawari**



**Surti**



**Nili Ravi**



**Mehsana**

# Summary

In this session you have learnt about the :

- Common body parts of cattle and their important breeds including
  - Indigenous cattle breeds of economic importance
  - Exotic cattle breeds
  - Crossbred cattle
  - Indian buffalo breeds

**Project Coordinator : Dr. Kuldeep Singh**

**Assistance**

**Dr. Mukur Ganguly**



**Joint Director**

**PSS Central Institute of Vocational Education  
Shyamla Hills, Bhopal – 462013 , Madhya Pradesh, India**

---

**E-mail: [jdpsscive@gmail.com](mailto:jdpsscive@gmail.com)**

**Tel. +91 755 2660691, 2704100, 2660391, 2660564**

**Fax +91 755 2660481**

**Website: [www.psscive.ac.in](http://www.psscive.ac.in)**