

CAMEL PRODUCTION AT CAMEL BREEDING AND RESEARCH STATION AT RAKH MAHNI, DISTRICT BHAKKAR

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Camels in prophet Muhammad's saying

*Abn Umer reported: The messenger of Allah Said,
" the parable of one who knows the Quran by
heart is as the parable of an owner of Hobbled
Camel. If he remains vigilant, he will retain it, and
if he neglects it, will go away.*

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Camel Breeds of Punjab

- Mareecha (Mahra)
- Bagri (Booja)
- Brella (Thalochi)
- Mountainous (Cambelpuri)
- Kala chitta

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Population

- World wide camel population 19 million
- Half camel population is in horn of Africa
- Pakistan camel population About 1.2 million (P.L.census 2006)
- Balochistan 41.22%
- Punjab 21.61%
- Sindh 30.23%
- NWFP 6.94%

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Distribution

District wise Camel population in Punjab

✓ Bahwalapur	11328
✓ Bhakkar	19339
✓ Rajanpur	18338
✓ Mianwali	8796
✓ Layyah	16344
✓ Khushab	8594
✓ Jhang	8289
✓ Attock	8443
✓ DG Khan	11745

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Camel Utility

1. Milk
2. Milk Byproduct
3. Meat
4. Work
5. Medicinal use
Use for Heart Patient, Hepatitis , Diabetes and Arthritis
6. Miscellaneous

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1.MILK PRODUCTION

Country	Milk yield (kg)	Lactation length (m)	Av.milk yield (kg)
Pakistan	2920	16-18	8
India	2482	18	6.8
Somalia	1825	9-18	5
Tunisia	1460	9-16	4
Algeria	1460	9-16	4
Ethiopia	1825	12-18	5

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2. Camel Milk Byproducts

Milch/Dairy animal

- Ice cream
- Chocolate
- Cheese
- Yogurt
- Flavored milk



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3. Meat

- Growth rate: 0.3-1.0 kg (Birth to 1 year)
Average slaughter wt : 456 kg
Dressing percentage : Av 56



- Composition:
The amount of minerals, protein and ash is the same as that of beef, but camel meat contains less lipids (1.2-1.8% versus 4.0-8%) and high water content (5-8 % more) than that of beef.



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4. Work

- Agricultural operations
Ploughing, planking
- Hauling carts: Av 3000 kg
- To run certain devices such as Persian wheels, sugar cane and seed crusher
- Pack animal (A mature animal can carry 200 kg for 5 hrs covering 25 to 30 km day)



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4. Miscellaneous

- Hides: Leather and other products
- Sport animal
- Camel race, fighting, riding, dancing, etc.
- Sacrificial purpose
- Patrolling (army/rangers)



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An Overview of Camel Research in the Punjab

- [Livestock and Dairy Development Department](#)
- ✓ Livestock Production Research Institute (LPRI) Bahadurnagar, District Okara.
- ✓ Directorate of Livestock Farms (DLF)
- ✓ Barani Livestock Production Research Institute (BLPRI), District Attock.
- ✓ Camel Breeding and Research Station (CBRS), Rakh Mahni, District Bhakkar

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Camel Breeding and Research Station, Rakh Mahni, District Bhakkar

- Establishment:- 2004-05
- Budget:- Rs. 169.74 Million
- Total area:- 9173 Acres
- Animal strength (when started):- 44
- Present strength :- 140
- Main Objective: To explore the productive and reproductive aspects of camel.

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Laboratories

- Reproduction Physiology
- Breeding and Genetics
- Nutrition
- Milk/Meat

Major Issues in Camel Husbandry

- Under feeding
- High calf mortality
- Long calving interval

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General Information - Camel Herd

Camel Strength

• Bulls	5	
• She-camels	64	
• Male Young stock	12	
• Female Young stock	11	
• Male sucklers	23	
• Female sucklers	25	
• Total		140

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General Information - Camel Herd

- Fertility 36.29%
- Mortality:- 2.5 %

Mareecha Camel- Productive Traits Studied at CBRS

- Birth weight:- 40 kg
- Weaning weight:- 70 kg
- Adult weight:- 650 kg
- Milk yield:- 3000 lit (410 days)
- Calving interval:- 710 days
- Milk composition is also studied

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Research Work Completed With CBRS (Under Publication)

- Identification and botanical classification of desert plants and camel fodder in surroundings of camel breeding and research station, Rakh Mahni.
- Hormonal biomarker with reference to lactation and pregnancy in camels.
- Hormonal stress biomarker of pregnant and non pregnant camels.

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Research Work Completed With CBRS (Under Publication)

- Hematological profile of camels: Influence of pregnancy and stress.
- Influence of lactation and pregnancy on milk composition of female camel.
- Prevalence of Surra (trypanosomiasis) and relative efficacy of two different treatments.
- The analysis of soil, plant, animal relationship with reference to mineral nutrients.

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Suggestions and Recommendations

- Collaborative research with CBRS and other academic institutes mainly the agriculture universities.
- Registration of camel herds
- Establishment of Camel Health Centre (Cholistan and Rakh Mahni) with main focus on Surra and Mange
- Selection and application of modern breeding techniques
- Organized marketing

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Suggestions and Recommendations

- Fattening of males
- Special incentives: Hardship allowance, rent free accommodation etc.
- VRI(s) on board
- International collaboration

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Extension Services

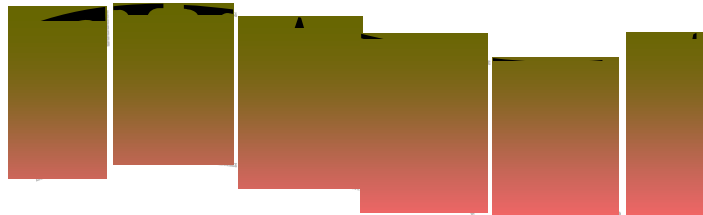
- Identification of a committed team of workers to work with the camels.
- Evaluation /monitoring system- Fair/unbiased
- Main focus feeding management and health
- Organized camel activities (Festivals, farmers day, trainings etc.).
- Cash prizes for raising "Best camels"

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Extension Services

- Free health cover (free medication, vaccination etc).
- Mobile veterinary clinics
- Maintaining a complete data base of information generated and their publication in scientific journals.
- Camel forum having its website
- Use of media to highlight camel significance

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Work



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Ongoing Projects

- Serum enzymes and hormonal profile of Mareecha camel during rutting season.
- Semen collection by artificial vagina and lectro-ejaculator in camels.
- Effect of reproductive hormones in induction of ovulation in female camels.
- Biochemical indices of male and female camels during breeding and non-breeding season.

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Abstracts (2nd ISOCARD Conference .12-14 March, 2009, Djerba, Tunisia)

- Milk composition and enzymes profile of female camel (*Camelus dromedarius*) injected with oxytocin.
- Dynamics of cystic fluid, serum biochemicals, amino acid and mineral profile in *Echinococcus granulosus* affected camels (*Camelus dromedarius*).
- Serum biochemical health parameters status of camels (*Camelus dromedarius*) in different physiological conditions.

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Abstracts (2nd ISOCARD Conference .12-14 March, 2009, Djerba, Tunisia)

- Biomarkers of health and mineral status in pregnant camels (*Camelus dromedarius*).
- Effect of repeated doses of oxytocin on the lactoperoxidase system of milk in female camels (*Camelus dromedarius*).
- Relationship study of mineral status with reference to soil, water, serum, urine and faeces at different physiological stages in camels (*Camelus dromedarius*).

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Abstracts (2nd ISOCARD Conference .12-14 March, 2009, Djerba, Tunisia)

- (Researchers: M.Ashraf Iqbal, Nawaz Saeed, M.Ajmal Jalvi, Prof Zia-ur-Rehman, Abdul Malik, Haseeb Anwar and Rifat-ullah Khan)
- Iqbal, A., B.B.Khan and M.Younas. Foraging behaviour of dromedary camels in the mountainous areas of thee Punjab, Pakistan.

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