

CHALLENGES AND OPPORTUNITIES IN SUSTAINABLE GENETIC IMPROVEMENT OF ZEBU DAIRY FARMING

ICAR & INTERBULL
MAY 19-24, 2024 SLOVENIA

2023 Top 5 Milk Producer Countries:

| Country | Estimated Production (thousand tonnes) |
|------------------|--|
| 1. India | 236.3 |
| 2. USA | 102.9 |
| 3. Pakistan | 64.3 |
| 4. China | 43.4 |
| 5. Brazil | 36.6 |

(FAO, 2023)

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Directly influenced by the Zebu cattle (*bos taurus indicus*)



GYR



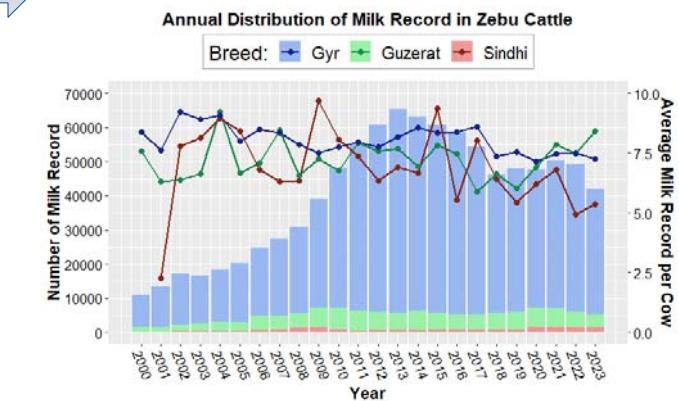
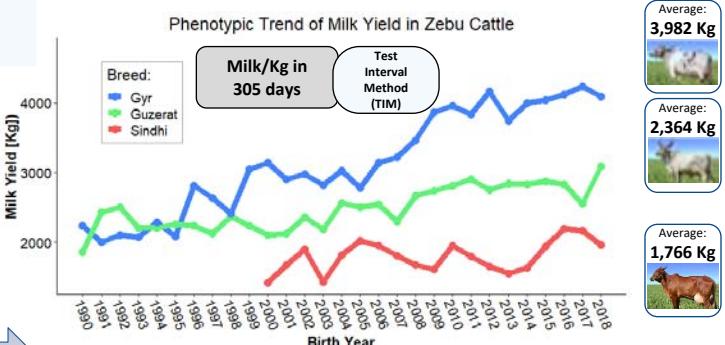
GUZERAT



SINDHI

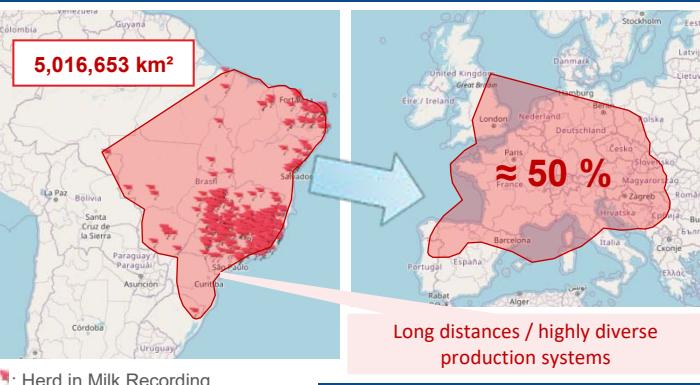
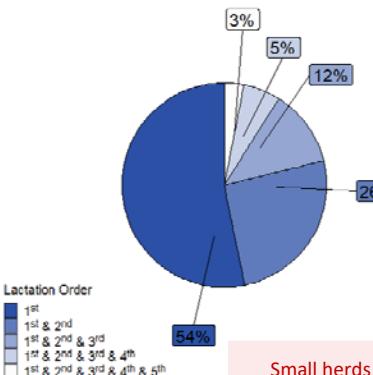


Dairy purpose being developed in Brazil



REPORTED CHALLENGES

Percentage of cows from different number of lactations available

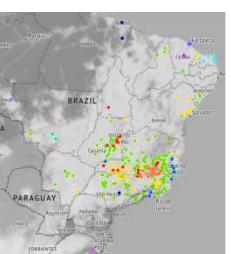


Long distances / highly diverse production systems

SOLUTIONS ADOPTED

Maintaining TECHNICIANS trained and skilled for phenotype collection and advising breeders.

TECHNICIANS in various parts of the country



data collection relies on TECHNICIAN visits / limits the information flow

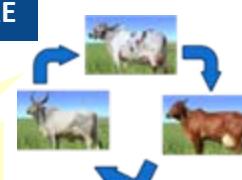


Selective phenotyping

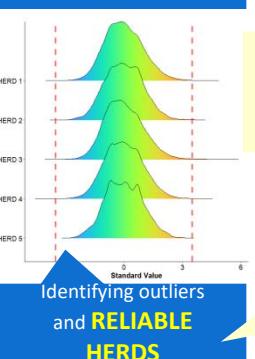
Monitoring TECHNICIANS and Herds distributions of information

Identifying outliers and RELIABLE HERDS

IN THE FUTURE



Multi-breed genomic evaluation



Genetic evaluation with these herds, incorporating more reliable phenotypes and new traits