



Is the **digital transition** of farm a key to **sustainability**?

The Parmalat Lactalis Italia Scenario



22nd to 26th May 2023



Corporate Social Responsibility

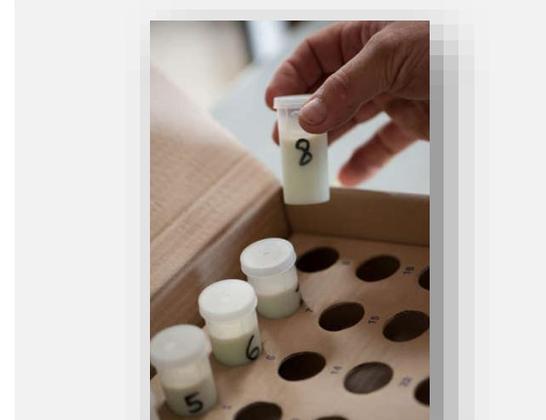
CSR Milk Supply Key Topics



Environment



Animal Welfare



Milk Quality and Antimicrobial stewardship



Communities

Milk Purchasing Quality team with dedicated 11 dairy technician

FOOD SAFETY & HYGIENE

This part of the farm are assessed:

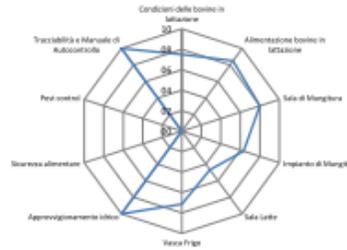
- Lactating cows barn
- Feeding & water
- Milking parlour
- Milking equipment
- Milk room
- Tank
- Food safety (potable water, antibiotics management and aflatoxin M1)
- Pest control
- Traceability

95 evaluations points

Data 04/06/2021
 N. cis nell'anno 1
 Ragione sociale: Az. Agr. Licetti Sara
 Codice ASL 0118637

Codice AUDIT 0118637_6_2021

Punteggio CIS	6,3
Condizioni delle bovine in lattazione	7,5
Alimentazione bovine in lattazione	8,5
Sala di Mangitura	8,0
Impianto di Mangitura	6,2
Sala Latte	4,7
Vasca Frigo	7,1
Approvvigionamento idrico	10,0
Sicurezza alimentare	0,0
Pest control	0,0
Tracciabilità e Manuale di Autocentro	10,0
Area sanità e sicurezza	6,0
Area igiene	6,5
Raccomandazioni	



Sala di Mangitura
 Schermare le aperture presenti nella sala di mangitura.

Impianto di Mangitura
 Sostituire le parti in gomma logore dell'impianto e lavare con maggior cura le parti in gomma del vaso latte (nel caso sostituirle).

Sala Latte
 Conservare i detersivi in armadietto e locale dedicato. Schermare le aperture non protette.

Sicurezza alimentare
 Adottare un piano di controllo per l'eventuale utilizzo di inibenti tramite dellivest: T o Kit rapido beta star combo s, e massimamente per la determinazione dell'aflatoxina M1.

Pest control
 Adottare un piano di lotta agli animali infestanti che sia mappato e registrato.

Spazi a disposizione degli animali in lattazione	
spazi ok	174%
Acqua a disposizione degli animali in lattazione	
Acqua ok	255%
N. bovine in lattazione	23
Acqua per animali	77

- Animal welfare** standard are highlighted:
- Bedding space
 - Water availability

Recommendation are made to improve weak points

Ha eseguito la valutazione
LAERTE IACOMINO
 Milk Collection, Garanzia Qualità

The assessment has been developed by **CRenBA**
that is the Italian National Animal Welfare Reference Centre

Based on Welfare Quality, EFSA guidelines and current EU legislation

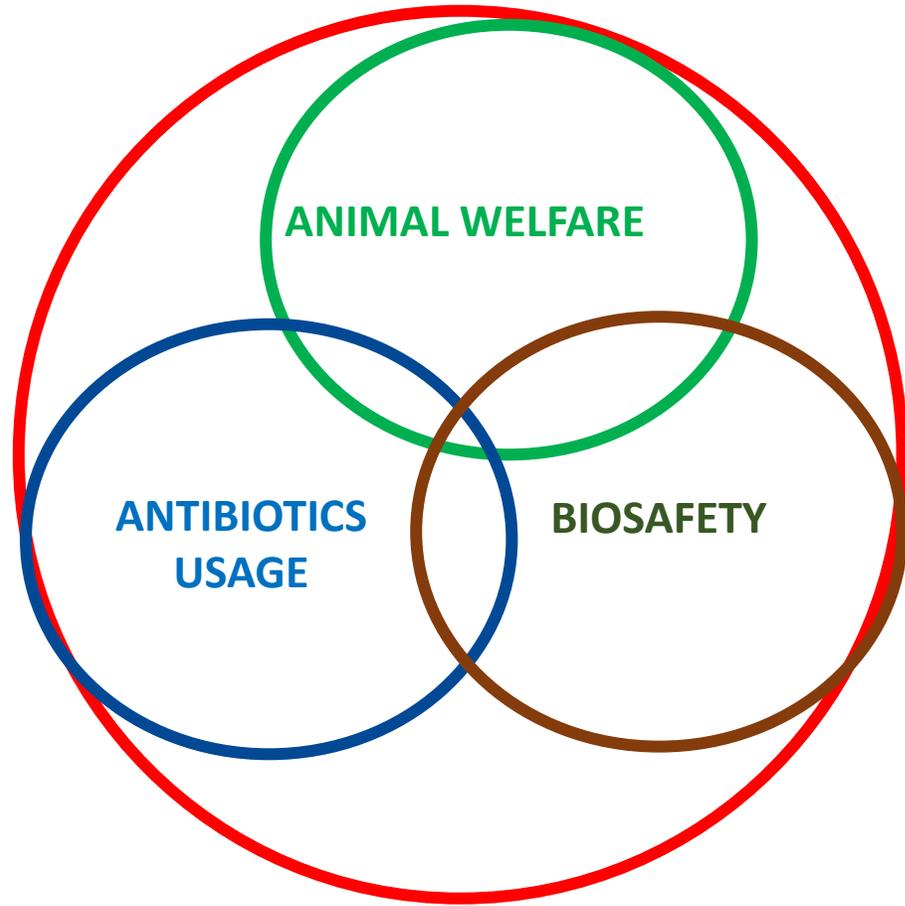
5 different areas are assessed only by trained veterinarians

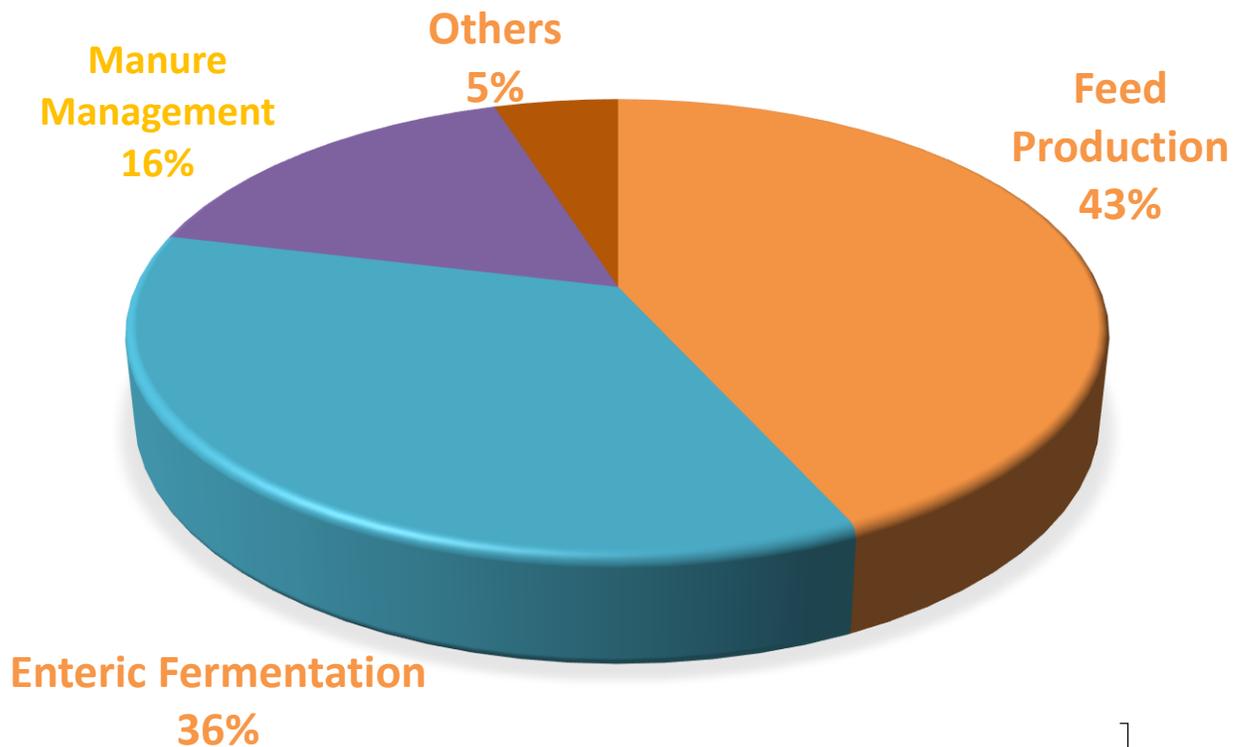
- ✓ Area A FARM MANAGEMENT AND PERSONNEL;
- ✓ Area B FACILITIES AND EQUIPMENT
- ✓ Area C Animal Based Measures (ABMs);
- ✓ Area D INSPECTION OF MICROCLIMATIC ENVIRONMENTAL CONDITIONS AND ALARM SYSTEMS;
- ✓ Area E BIOSECURITY.

Multiplex answer on 3 level:

- Negative
- On target
- Overachieved

81 evaluation points

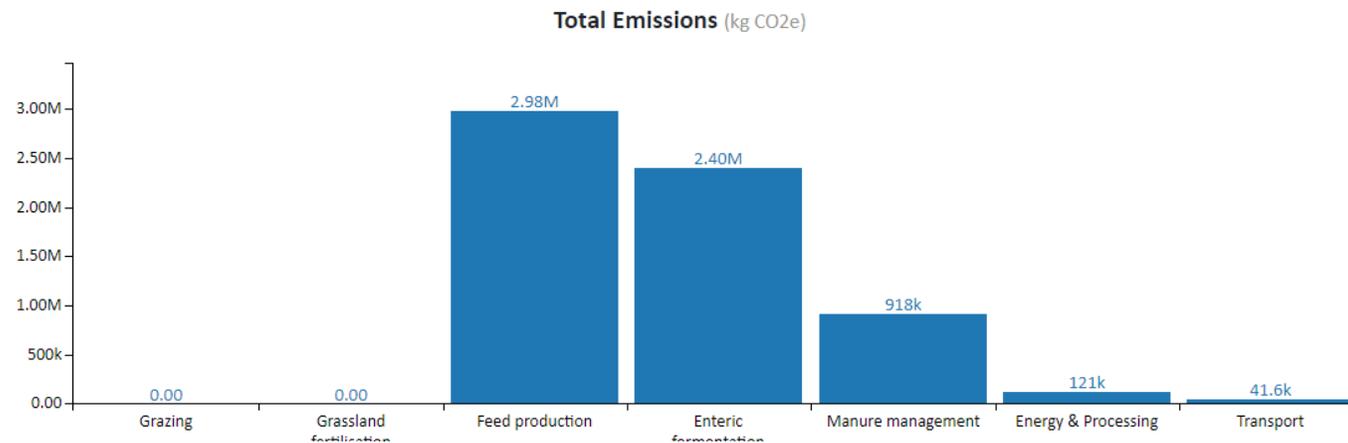




Several graphs are provided to show and interpret the results.

These allow each of the each of the specific impacts to be evaluated and to open discussions on possible plans for reducing the carbon footprint.

196 evaluation points



Key Numbers



174 Animal welfare ClassyFarm assessment



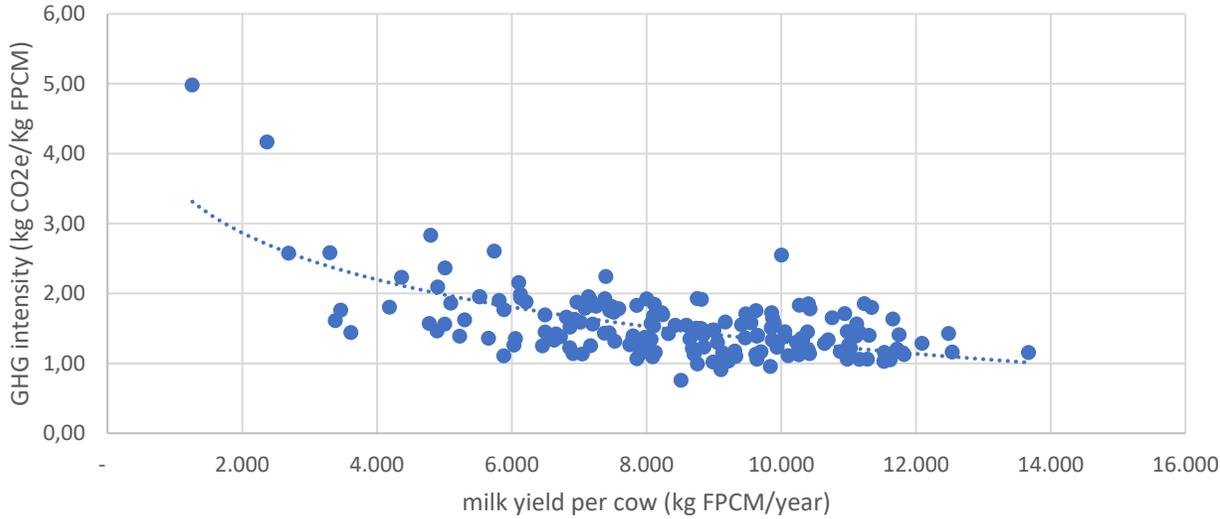
174 Carbon footprint audits



6.267 milk quality analysis with a total of 56.356 different parameters

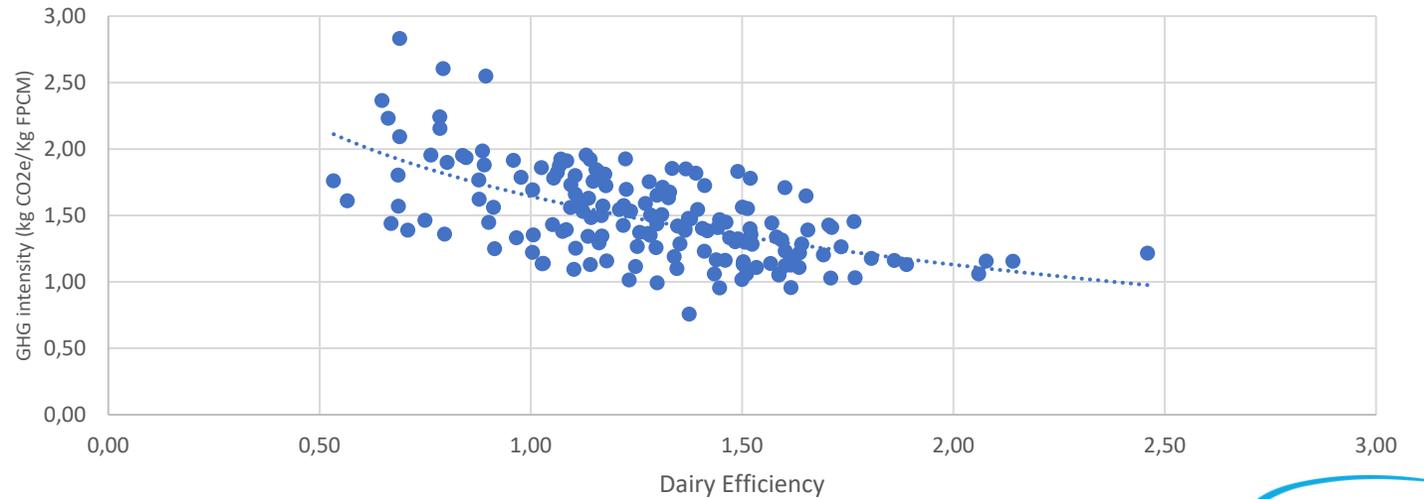
KSIs - key sustainability indicators

Animal productivity



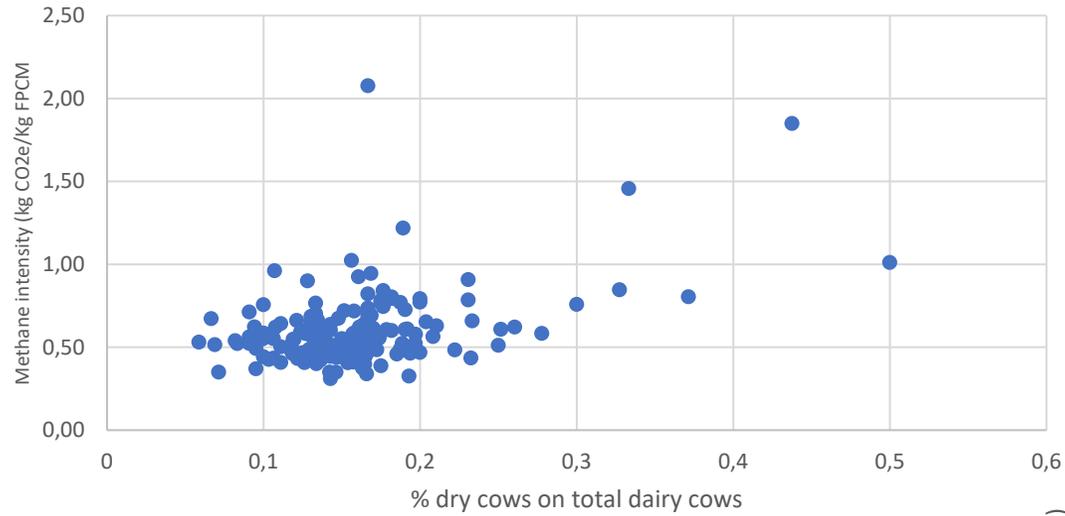
Direct correlation $> 0,6$ $p < 0,01$

Dairy Efficiency



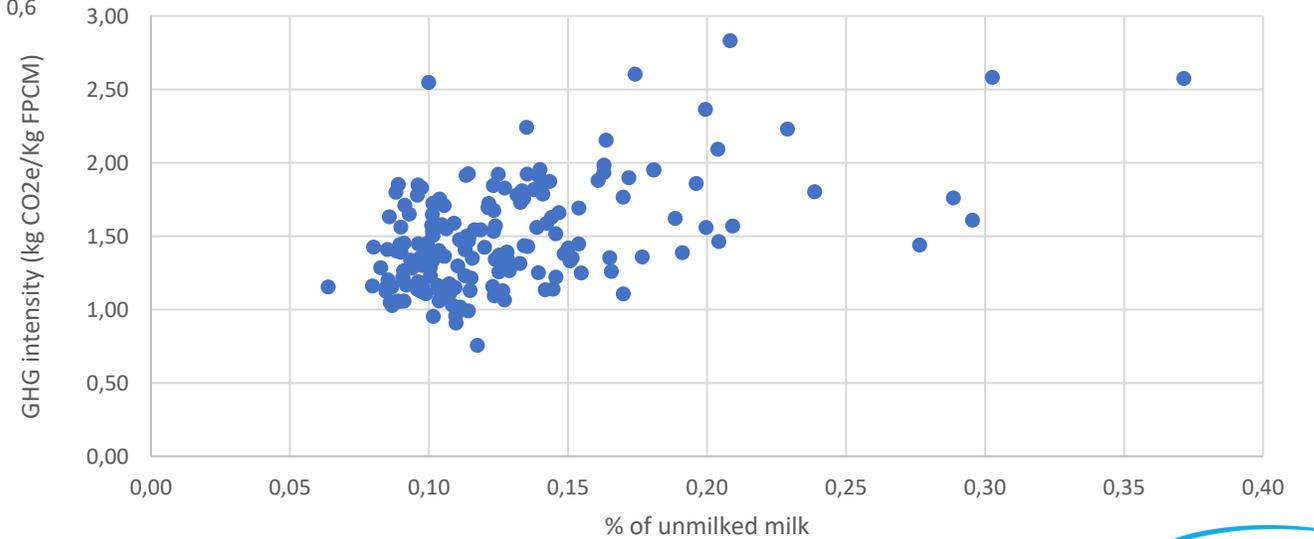
KSIs - key sustainability indicators

Unproductive animals



Inverse correlation > - 0,6 p<0,01

Herd In-Efficiency



	10% lowest CF	average	10% highest CF
Milk			
Fat (g/100mg)	3,82	3,87	4,01
Protein (g/100mg)	3,34	3,37	3,40
Total Bacterial Count(fcu/ml)	11.581	9.255	11.213
Somatic cell count(Cell/ml)	258.976	236.731	228.283

	10% lowest CF	average	10% highest CF
Production			
Milk (kg/year)	1.889.141	1.207.694	526.929
FPCM Milk (Kg/day/cow)	33,01	30,54	23,68
FPCM lactation (kg/cow)	10.068	9.316	7.222
Demographics			
Age at first calving (months)	24,7	24,6	24,5
Ratio Heifers/total heads	35%	39%	39%

	10% lowest CF	average	10% highest CF
Feeding			
Dry Matter intake DMilkii	22,20	22,37	24,19
Ratio Soy/ concentrate	8,8%	7,1%	6,9%
Dairy Efficiency	1,44	1,34	0,98

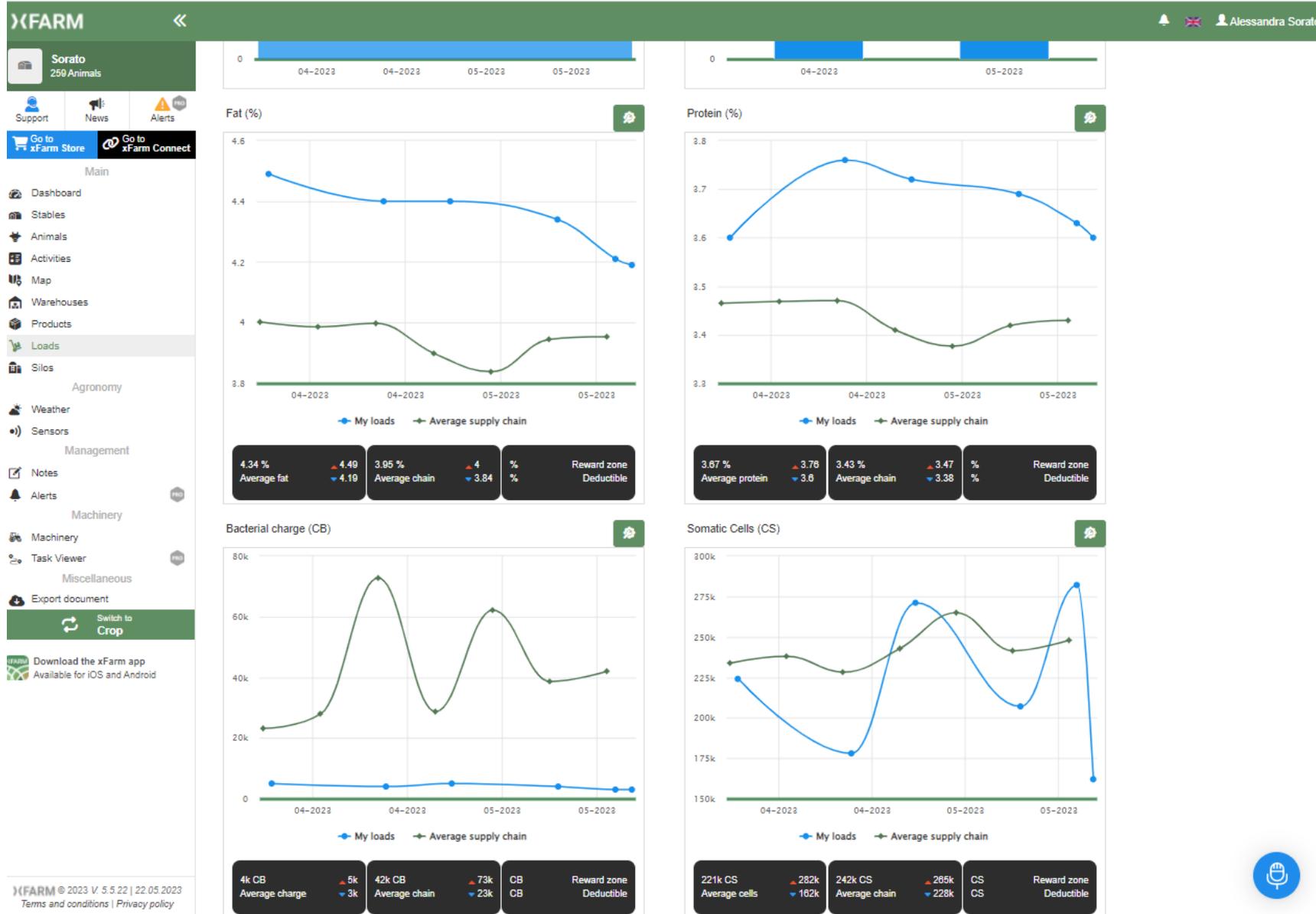
ClassyFarm	10% lowest CF	average	10% highest CF
Total Animal Welfare	76	75	72
Biosecurity	63	58	54
Inspection Of Microclimatic Environmental Conditions And Alarm Systems	49	52	51
Farm Management And Personnel	77	72	64
Facilities And Equipment	64	64	58
Animal Based Measures (ABMs)	80	82	83

How to give, in a continuous way, to the farmer this information to master the process?

Creating a **DSS** (decision support system) **digital twin of Farms** From Crops to milk tank



Digital transition of farms



XFARM <<

Cecchinato
81.30 Ha

Supporto Novità Avvisi

Vai su xFarm Store Vai su xFarm Connect

Prodotti Carichi Silos

Agronomia

Meteo Sensori Irrigazione Difesa Insetti

Gestionali

Note Pianificazione Colturale Lotti di produzione Allerte Finanze Gestione operativa Piano di lavoro Sostenibilità azienda

Macchinari

Macchinari Satellite

XFARM © 2023 V. 5.5.31 | 23.05.2023

Sostenibilità

Indicatori Coltura Interessata

Impronta carbonica Frumento Tenero (Grano) +3

Informazioni

Titolare:	---
Mail:	---
Nome azienda:	Cecchinato
Indirizzo:	--
Numero di campi:	33
Area Totale:	81.23 ha
Impatto:	301099.68 kg
Resa:	46.13 t/ha

Riepilogo sostenibilità

RESA TOTALE 3728.57 t	RESA AD ETTARO 43.76 t/ha	IMPATTO DIRETTO 154691.63 kg CO2eq	IMPATTO INDIRETTO 123443.31 kg CO2eq
IMPATTO PER ETTARO 3264.49 kg CO2eq/ha	IMPATTO PER KG DI PRODOTTO 0.07 kg CO2eq/kg		

Posizionamento per impatto

Impatto t/ha

- 0.11
- 1.52
- 2.22
- 2.93
- 3.63
- 4.33
- 5.04

Understand how the feed is produced and given to the cows to better evaluate cow-cow data

From the consumer perspective better **traceability & authenticity**



Animal welfare possibility to integrate with sensor or other system data

Milk Quality with benchmark of the supply chain

** ALL Data are updated every 7 days

Can we in the future think about integrating genetics/DHI indicators of the whole herd and connect them with 360° sustainability of the farm to leverage the result ?



Grazie
per l'attenzione



Vuol dire fiducia.®

